



General and Special Provisions

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ACCESS CONTROL AND TEMPORARY SAFETY BARRIER RETAINING WALLS AND SOUNDW ALLS (WL) SPECIAL PROVISIONS

In addition to the attached General Provisions (Form TR-0045), the following special provisions are also applicable:

1. A temporary 6' (1.8 m) high access control fence shall be provided before removing the existing fence. Existing fence fabric shall be salvaged and delivered to the nearest State facility as directed by the State's representative at no cost to the State. The remaining access control fence shall be tied to the wall.
2. Fence posts are to be removed completely and the holes backfilled with compacted earthen material.
3. Access to the worksite from the freeway is prohibited.
4. Any material stored at the worksite within 30' (9.1 m) of the traveled way when work is not in progress shall be protected by Type K barrier railing placed at a 20: 1 taper or as otherwise directed by the State's representative.
5. Any Type K barrier placed within 10' (3.0 m) of the traveled way shall have one appropriate reflective marker affixed to the top of each section. A Type "P" object marker shall be installed in front of the approach end section. The end section shall also be protected by a temporary crash cushion array.

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1. AUTHORITY: The Department's authority to issue encroachment permits is provided under, Division 1, Chapter 3, Article 1, Section 660 to 734 of the Streets and Highways Code.

2. REVOCATION/CANCELLATION: This permit may be revoked by the Department for noncompliance with permit provisions or for failure of the permittee, or their representative, to adhere to direction given by a Departmental representative. These provisions are subject to modification or abrogation at any time. This permit may be temporarily suspended due to construction or other State operations at, or within, the vicinity of the site.

Permittee may cancel their permit at any time without consequence from the Department. Permittees using contractors are responsible for terminating those arrangements.

3. ASSIGNMENT: No parties other than the permittee, or permittee's authorized representatives, are allowed to work under this permit.

4. ACCEPTANCE OF PROVISIONS: Permittee understands and agrees to accept these Adopt-A-Highway Permit Special Provisions and all attachments to this permit, for any work to be performed under this permit. It is understood and agreed by the permittee that performing work under this permit shall constitute acceptance.

5. PERMITTEE RESPONSIBILITY: No person shall enter the State's right-of-way to perform work until the Department's representative has given the permittee's safety/crew leader a safety orientation, and, all participants have received safety training from the permittee's safety/crew leader as described in items 19 and 22.

It is the responsibility of the permittee to notify the District Adopt-A-Highway Coordinator of any change of permittee's address, phone number, or contact person.

6. PLAN CHANGES: Changes to plans, specifications, and permit provisions are not allowed without prior approval from the Department.

7. PARTICIPATION OF MINORS: No minors under the age of 16 are permitted to work on State right-of-way. Minors, aged 16 and 17, may participate provided that there is one adult supervisor present at the site for every five minors working. The adult supervisor must be at least 21 years old and must walk along with the group.

8. BEGINNING OF WORK: Work authorized by this permit shall begin within 30 calendar days from the date of issuance, regardless of whether or not the permittee's Adopt-A-Highway courtesy sign(s) and/or recognition panel(s) have been installed.

9. WORK DAYS AND HOURS: Work must be performed during daylight hours. If weather (or other adverse circumstance) causes decreased visibility or a public hazard, work shall immediately be discontinued. Work shall not be conducted on, or within twenty-four hours preceding, the following holidays or holiday weekends: New Year's Day, Martin Luther King, Jr.'s Birthday, Lincoln's Birthday, Presidents' Day, Cesar Chavez's Birthday, Easter, Memorial Day, Independence Day (July 4th), Labor Day, Columbus Day, Veteran's Day, Thanksgiving and the day after, and Christmas. Unless specified on Attachment A, work is permitted the day following a legal holiday or holiday weekend.

10. PARTICIPATION IN STATEWIDE EVENTS: Weather permitting, litter removal groups shall schedule work during the "Great California Cleanup" (March-May) and "California Cleanup Day" (September) events in order to support Adopt-A-Highway's partici-

pation in national and international cleanup events.

11. CONFLICTING ENCROACHMENTS: Permittee shall yield start of work to ongoing, prior authorized, work adjacent to or within the limits of the project site.

12. PERMIT AT WORK SITE: Permittee shall keep the complete permit package (Adopt-A-Highway Encroachment Permit, Adopt-A-Highway Permit Special Provisions, plans, and schedules) or a copy thereof, at the work site and show it upon request to any Department representative or law enforcement officer. If the permit package is not kept and made available at the work site, the work shall be suspended. In addition, a copy of the encroachment permit must be displayed in the windshield of each vehicle parked on the right-of-way. Vehicles without permits may receive traffic citations.

13. PARKING AT THE WORK SITE: Participant's personal vehicles shall not interfere with the free flow of traffic or pedestrians. Vehicles used to transport participants or materials may legally park on the right-of-way provided that they are located completely *off of the pavement and a minimum of six feet from any traffic lane*. If this is not possible, participants must walk to and from the site or, if the site has a shoulder, participants can use a drop-off and pick-up arrangement.

14. WORK PROCEDURES: Work shall proceed in the direction facing traffic. A posted safety lookout shall be used when fellow participants are unable to watch oncoming traffic.

Work shall not be performed on or within six feet from any traffic lane or on median strips. Participants shall not walk or run across access-controlled highways (freeways), including on-ramps and off-ramps. Participants shall not work on unstable or slippery ground, on slopes greater than approximately 40°, on bridges, in tunnels, or inside culverts. Unless excluded by the aforementioned conditions, or entered on Attachment A, litter removal and vegetation control shall be performed behind soundwalls.

15. PUBLIC TRAFFIC CONTROL: Unless specifically checked and described as an "Other Adoption Type," all forms of traffic control, including shoulder closures, are prohibited under this permit.

16. SAFETY EQUIPMENT: It is required that all participants wear hard hats, safety vests, gloves, and protective eye wear while working within State's right-of-way. The Department will provide these and, if needed, litter pickers to volunteers free of charge. In addition, participants are required to wear long pants and substantial leather shoes or boots with ankle support. Any State-furnished, personal protective equipment, unused materials, and tools shall be returned upon termination of the adoption.

17. LITTER BAGS: Participants shall use white, Adopt-A-Highway bags provided by the Department. Securely tied, filled bags must be placed at least six feet from the edge of traffic lanes and off of paved shoulders. Bags must be placed in locations where they are not obstructing drainage and where Departmental maintenance forces can easily see them and safely retrieve them. Whenever possible, bags should be stacked together and/or placed 100 feet from structures. It is important for participants to leave their filled bags at the site so that the Department can verify that work frequencies are being met. Also, the monthly count of white bags collected, enables the Department to quantify the value of the Adopt-A-Highway Program. (Participants may take bags of recyclables home.)

18. STORAGE OF EQUIPMENT AND MATERIALS: Unless specified in the Permittee's planting and/or work plans, storage of equip-

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ment and materials (other than filled, Adopt-A-Highway litter bags) on the State right-of-way is not authorized under this permit.

19. SAFETY PROCEDURES FOR VOLUNTEER GROUPS:

- A. Designate a safety leader.** Each permittee shall designate a safety leader to represent the group. Unless otherwise notified, the Department considers the safety leader to be the individual whose name appears on the attached encroachment permit.
- B. Attend a Caltrans safety orientation.** The designated safety leader shall schedule and attend a safety orientation given by the Department's representative within two weeks of this permit's date of issue. The "Adopt-A-Highway Safety Orientation Checklist for Volunteers" will be reviewed, signed, and a copy given to the permittee. New safety leaders, appointed during the permit period, must make arrangements to be given a safety orientation by a Departmental representative, not by the Permittee's previous safety leader.
- C. Obtain safety equipment:** Safety equipment and a copy of the Adopt-A-Highway safety video shall be issued during the Caltrans safety orientation. Participants who need them will also receive Adopt-A-Highway litter bags and litter pickers. Additional safety equipment and litter bags may be obtained as needed throughout the permit period from the Department's Maintenance Field Representative.
- D. Provide safety training to all group members.** The safety leader shall then provide safety training for all participants before they attend a work event. The encroachment permit and special provisions must be explained and part two of the Adopt-A-Highway safety video must be viewed.
- E. Conduct safety reviews before each work event.** Safety leaders must conduct a brief, off-site safety review each time the group goes out to work. The "Safety Requirements for Participants" and the "Bag It, Move It, or Leave It?" handouts should be reviewed. Safety leaders shall ensure that all participants are equipped with safety gear and that minors will be adequately supervised.
- F. Provide annual safety training.** Safety leaders must hold an annual safety training refresher for all participants. Once again, the encroachment permit and special provisions pages shall be explained and part two of the Adopt-A-Highway safety video viewed.
- G. Report injuries, accidents, and incidents.** The following occurrences shall be reported to the District Adopt-A-Highway Coordinator on the next business day. Injuries resulting in an individual seeking medical treatment, vehicular damage resulting in an insurance claim and/or police report, and incidents where the California Highway Patrol was contacted.

- 20. ADOPT-A-HIGHWAY SIGNS:** The Department shall furnish, install, and maintain an Adopt-A-Highway courtesy sign(s) and standard recognition panel(s) at the adoption site in recognition of the Permittee's contribution. Standard recognition panels shall display the Permittee's name in black, block letters on a white background. Permittees may furnish a customized, recognition panel(s) at their own expense. Specifications for the recognition panel's wording, size, color, type style, placement, and any subsequent modifications shall be solely determined and approved by the Department. (Note: "Spot" Wildflower adoptions do not meet minimum requirements for a courtesy sign.) **The Adopt-A-Highway Program and its courtesy signs are not a forum for advertisement or public discourse.**

- 21. WHEN AN ADOPT-A-HIGHWAY CONTRACTOR IS UTILIZED:** Individuals, organizations, and businesses may adopt segments of highway and have the required adoption work performed by a professional business through contract or agreement. Contractors must submit a separate Adopt-A-Highway Permit Application and will be issued a "double permit." Only contractors that have been pre-approved by the Department may be utilized. In order to receive Departmental approval, contractors must submit and maintain the following documents:

- A. A certificate of insurance for general liability,** in the minimum amount of three million dollars, is required for contractors who employ persons to perform work authorized under this permit. A certificate of insurance for general liability, in the minimum amount of one million dollars, is required for contractors who do not employ persons to perform work authorized under this permit. Said certificates for general liability insurance shall name the State of California Department of Transportation as additional insured.
- B. Vehicular insurance,** in the minimum amount of one million dollars, is required of all contractors.
- C. Worker's compensation insurance,** in the minimum amount of one million dollars, is required for contractors who employ persons to perform work authorized under this permit.
- D. Professional licensing** as required by the California State Contractors Licensing Board and/or the California Department of Pesticide Regulation to perform work authorized under this permit. **Subcontracting is not permitted under the Adopt-A-Highway Program.**
- E. County and/or city business licenses** as required by local governments to perform work authorized under this permit.

Contractors are required to provide a minimum notice of 30 days to the Department's District Adopt-A-Highway Coordinator or State-wide Adopt-A-Highway Coordinator before any reduction in coverage and/or cancellation of coverage becomes effective.

22. SAFETY PROCEDURES FOR ADOPT-A-HIGHWAY CONTRACTORS:

- A. Attend a Caltrans safety orientation.** Adopt-A-Highway contractors shall abide by safety requirements set forth by California Occupational Safety and Health Administration (Cal-OSHA). In addition, the contractor's crew leader shall schedule and attend a safety orientation given by the Department's representative within two weeks of this permit's date of issue. The "Adopt-A-Highway Safety Orientation Checklist for Contractors" will be reviewed, signed and a copy given to the permittee.
- B. Report injuries, accidents, and incidents.** The following occurrences shall be reported to the District Adopt-A-Highway Coordinator on the next business day. Injuries resulting in an individual seeking medical treatment, vehicular damage resulting in an insurance claim and/or police report, and incidents where the California Highway Patrol was contacted.

- 23. PERMITS FROM OTHER AGENCIES:** This permit is invalid if the permittee has not obtained all permits necessary and required by law from Cal-OSHA, the Public Utilities Commission of the State of California (PUC), the California State Contractors Licensing Board, the California Department of Pesticide Regulation, or any other public agency having jurisdiction.

- 24. COST OF WORK:** Unless stated in the permit, or a separate written agreement, the permittee shall bear all costs incurred for work

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within the State right-of-way and waives all claims for indemnification or contribution from the State.

- 25. PREVAILING WAGES:** Work performed by or under a permit may require permittee's contractors to pay appropriate prevailing wages as set by the Department of Industrial Relations. Inquiries or requests for interpretations relative to enforcement of prevailing wage requirements are directed to State of California Department of Industrial Relations, 525 Golden Gate Avenue, San Francisco, California 94102.
- 26. UNDERGROUND SERVICE ALERT (USA) NOTIFICATION:** Any excavation requires compliance with the provisions of Government Code Section 4216 et. seq., including, but not limited to, notice to a regional notification center, such as Underground Service Alert (USA). The permittee shall provide notification at least 48 hours before performing any excavation work within the right-of-way.
- 27. ARCHAEOLOGICAL/HISTORICAL:** If any archaeological or historical resources are revealed in the work vicinity, the permittee shall immediately stop work and notify the Department's Maintenance field representative.
- 28. DURATION OF PERMIT:** Unless otherwise specified, this permit is valid for five calendar years from the date of issuance. Permittees may apply for additional five-year permits, provided that the permittee and/or the permittee's contractor have satisfactorily met the terms of the existing permit and the site remains suitable for adoption. If the permittee wishes to reapply, a notice of such intent shall be submitted to the District Adopt-A-Highway Coordinator at least 30 days prior to the expiration date of this permit.
- 29. NO PRECEDENT ESTABLISHED:** This permit is issued with the understanding that it does not establish a precedent.
- 30. RESPONSIBILITY FOR DAMAGE:** The State of California and all officers and employees thereof, including but not limited to the Director of Transportation and the Deputy Director, shall not be answerable or accountable in any manner for injury to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee, or for damage to property from any cause. The permittee shall be responsible for any liability imposed by law and for injuries to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee, or for damage to property arising out of work, or other activity permitted and done by the permittee under a permit, or arising out of the failure on the permittee's part to perform his obligations under any permit in respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or other activity or at any subsequent time, work or other activity is being performed under the obligations provided by and contemplated by the permit.

The permittee shall indemnify and save harmless the State of California, all officers, employees, and State's contractors, thereof, including but not limited to the Director of Transportation and the Deputy Director, from all claims, suits or actions of every name, kind and description brought for or on account of injuries to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee and the public, or damage to property resulting from the performance of work or other activity under the permit, or arising out of the failure on the permittee's part to perform his obligations under any permit in respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or other activity or at any sub-

sequent time, work or other activity is being performed under the obligations provided by and contemplated by the permit, except as otherwise provided by statute.

The duty of the permittee to indemnify and save harmless includes the duties to defend as set forth in Section 2778 of the Civil Code. The permittee waives any and all rights to any type of expressed or implied indemnity against the State, its officers, employees, and State contractors. It is the intent of the parties that the permittee will indemnify and hold harmless the State, its officers, employees, and State's contractors, from any and all claims, suits or actions as set forth above regardless of the existence or degree of fault or negligence, whether active or passive, primary or secondary, on the part of the State, the permittee, persons employed by the permittee, or acting on behalf of the permittee.

For the purpose of this section, "State's contractors" shall include contractors and their subcontractors under contract to the State of California performing work within the limits of this permit.



ADOPT-A-HIGHWAY

Safety Requirements for Participants: "C R E W P L A N S"

Contact Caltrans. Notify your Maintenance field representative of your plans to work at least five days, but no more than one month, before the event. If State construction or maintenance activities have been scheduled at your adoption site on that same day, you will not be permitted to work.

Review safety procedures. Review these "Safety Requirements for Participants" and the "Bag It, Move It, or Leave It?" instructions with all participants at an off-site location prior to each work event.

Evaluate weather conditions. Work must be performed during daylight hours. Do not work, or discontinue working, if weather (or other adverse circumstance) decreases visibility or causes a public hazard.

Wear your safety gear. It is required that participants wear safety vests, hard hats, gloves, protective eye wear, long pants, and substantial leather shoes or boots with ankle support. Light-colored clothing and long-sleeved shirts are recommended. Put on your safety gear before travelling to your site and do not take it off on until you have left the roadside.

Park in a safe place. Please carpool. Vehicles must park completely off of paved areas and be at least six feet from any traffic lane. If this is not possible and your site has a shoulder, then use a drop-off and pick-up arrangement instead. Or, enter and exit your site on foot from locations that allow you to face oncoming traffic. If in doubt about the safest way to access your site, please contact your Maintenance field representative for advice.

Look out for danger and look out for each other. Always work facing oncoming traffic. Use a safety lookout when fellow workers are unable to see oncoming traffic. Watch your footing and be alert for snakes, stinging insects, and poisonous plants. If your encroachment permit authorizes minors to participate, you must have at least one adult supervisor over the age of 21 at the site for every five minors present. Do not work alone.

Alert the California Highway Patrol (call 911) if you find an extremely hazardous item. Identify all objects before touching them and handle found items according to the procedures outlined in the "Bag It, Move It, or Leave It" instructions.

Never risk injury. Work shall not be performed on median strips. Stay completely off of paved areas and always remain at least six feet from any traffic lane; this includes crossing freeway on-ramps and off-ramps. Use extreme caution when crossing conventional, two-lane highways; plan to use crosswalks and signals where available. Do not work on unstable or slippery ground, on bridges, in tunnels, or in drainage facilities. Avoid behaviors that will distract motorists; this includes working in groups of more the three or four persons. Drink plenty of water. Use tools to help prevent over exertion. For example, litter removal groups should use litter pickers instead of bending to pickup litter and graffiti removal groups should use rollers instead of brushes to paint large areas.

Stack your bags. Do not overload or compact litter bags and be sure to tie them securely closed. Whenever possible, stack several filled bags together. Place bags completely off of paved areas and at least six feet from any traffic lane. Make sure that the bags are located where Caltrans maintenance crews can easily see them and safely retrieve them.

ADDITIONAL REQUIREMENTS: 1) No person shall enter the State's right of way to perform work until a Caltrans representative has given the permittee's safety leader a safety orientation, and, all participants have received safety training from that safety leader. 2) A complete encroachment permit "package" (encroachment permit, special provisions, and any plans and schedules) must be present at the site. In addition, a copy of the encroachment permit must be displayed on the dashboard of each vehicle parked on the State's right of way. 3) Work shall not be conducted on, or within twenty-four hours preceding, holidays or holiday weekends. Refer to your Encroachment Permit Special Provisions for a listing of holidays and possible additional work restrictions specific to your adoption site.

ADVERTISING DISPLAYS (AD) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

I. GENERAL

1. Signs, Marquees and Awnings overhanging State highway right of way (R/W) shall comply with the requirements of the applicable local agency, the latest edition of the Uniform Building Code (UBC) or these special provisions, whichever is the higher standard.

II. SIGNS

1. Vertical Clearance: The minimum clearance of signs from the sidewalk shall be 12' (3.7 m).
2. Codes: Must be structurally adequate and conform to applicable building code and Caltrans' Outdoor Advertising Regulations.
3. Location: Support shall be off the right of way. The overhang shall be at least 2' (0.6 m) behind the curb line. If no curbs are in place, the signs should be placed so that some physical barrier prevents them from being struck.
4. Advertising: The wording on the sign may only identify either the owner, the goods sold or manufactured on the premises or the services rendered.
5. Lights: No flashing, rotating or intermittent lights shall be allowed except approved public service information. Signs that contain red, yellow, or green lights shall not be permitted where they could interfere with the driver's perception of traffic signals.
6. No displays shall interfere with or hide traffic signals or traffic signs.
7. Any future change of copy or location must be covered by a separate permit.

III. MARQUEES

1. The horizontal clearance between a marquee and the curb line shall not be less than 2' (0.6 m).
2. The minimum vertical clearance from the sidewalk shall be 12' (3.7 m).
3. A marquee shall be supported entirely by the building.
4. Any drainage from the marquee shall not fall on or drain across the sidewalk.

IV. AWNINGS

1. An awning is a temporary shelter supported entirely from the exterior wall of a building.
2. Awnings may identify the owner or place of business.

AIR SPACE DEVELOPMENT (AS) SPECIAL PROVISIONS

In addition to the attached General Provisions, (TR-0045), the following special provisions are also applicable:

1. Column Protection: shall be lumber at least 2" (51 mm) nominal thickness and at least 4" (102 mm) nominal width with 2" (51 mm) maximum clear space between pieces. The lumber shall be strapped to columns with a minimum of three (3) galvanized steel bands. The bottoms of the pieces of lumber shall be 2' (0.6 m) or less above the ground and tops 8' (2.4 m) minimum above the ground.
2. Fencing: a standard 6' (1.82 m) high chain link fence may be installed around the perimeter of the leasing area with gate (s) as designated. Security may be enhanced by the installation of vertical brackets on the fence posts and attaching three (3) strands of barbed wire to the brackets. THE USE OF RAZOR RIBBON COILS ATOP THE FENCE IS PROHIBITED.
3. The improvements shall not be occupied by the leasee until all work is completed to the satisfaction of the State and a notice of completion has been issued to the permittee.
4. Upon completion of the work, the permittee shall submit one set of film positive reproducible, either matte or clear, "As-Built" plans to the District Permit Engineer.

ART PROGRAM (AP) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

1. Artwork located within State right of way will be considered a gift to the people of California.
2. Caltrans reserves the right to reproduce the artwork for publicity type purposes.
3. No commercial advertising on State right of way is allowed. Any identification of the donor or sponsor must have prior approval by Caltrans.
4. The permittee must maintain the integrity of the artwork until further notice. The permittee agrees to remove the artwork if so ordered by Caltrans.
5. The permittee shall abide by Caltrans' safety rules and regulations, including traffic control.

BANNERS (BR) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

I. BANNERS

1. The banners shall not contain private advertising nor be of a political nature.
2. The lower edge of the banners shall be at least 18' (5.5 m) above the highway pavement at its closest point.
3. Suspension or installation on State owned traffic signal poles or other State owned facilities is prohibited.
4. Local police shall provide traffic control while banner is being installed or removed.
5. The display may not be in place more than two weeks prior to the event and shall be immediately removed after the event.

II. CHRISTMAS DECORATIONS

1. Installation of Christmas decorations shall not begin prior to the day after Thanksgiving Day.
2. Decorations attached to vertical structures such as power, telephone, or light poles, are not to project beyond the curb line and shall not hang below a height of 14' (4.3 m). Decorations which project beyond the curb line or cross the highway shall have a minimum vertical clearance of 18' (5.5 m).
3. Decorations shall not be attached to State owned poles.
4. Decorative lighting displaying red, yellow, or green lights shall not be placed where they could interfere with the driver's perception of traffic signals.

BUS PASSENGER SHELTERS, BENCHES, AND PULLOUTS - ADVERTISING AND LOCATION (BS) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

1. Advertising displays on bus passenger shelters or benches may not be within 660' (201 m) of and visible from any Federal Aid Interstate or Primary highway. Advertising displays shall only be placed at approved passenger loading areas. The advertising displays must not extend beyond the exterior limits of the shelter or bench. Advertising shall not exceed two (2) display panels per shelter or bench.
2. Bus passenger shelters and benches shall be located a minimum of 2' (0.6 m) behind the face of curb, with a minimum of 4' (1.2 m) width of walkway available.
3. All pavement shall be saw cut prior to removal.
4. Pavement markings obliterated shall be replaced in kind by permittee.
5. No telephone installations are authorized by this permit.

CABLES/GEOPHYSICAL TESTING (GC) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are applicable:

1. The shear wave method of geo-physical testing is prohibited.
2. Cables shall not be left on the roadbed overnight.
3. Personnel working within the right of way shall wear orange colored outer garments and hard-hats.
4. No equipment shall be parked on or operated on the traveled way except for normal legal travel.
5. No holes shall be drilled and no blasting shall be conducted on State right of way.
6. On overcrossing structures, cables shall be placed within 6" (152 mm) of curb face.
7. No equipment, work, or personnel shall be allowed within access controlled rights of way except for personnel and cable necessary to place cable crossings required for continuity. Cable shall cross access-controlled rights of way in culverts or at crossing structures if available within 500' (154.4 m) of proposed crossing. Any drainage channel shall not be disturbed.
8. Cables shall be placed as close to the right of way line as practical.
9. Cable shall be securely attached to the traveled way by taping. No nails, spikes or other material shall be driven into the pavement.
10. No paint shall be placed upon highway pavements, signs or markers. If pavement markings are necessary, traffic tape, chalk or crayon shall be used. All tape, stakes and other obvious markers shall be removed upon completion of permitted work.
11. All mud, dirt or gravel tracked onto the highway pavement shall be immediately and completely removed.
12. Any ruts or other damage to unpaved shoulder areas caused by driving or operating equipment on soft shoulders shall be repaired immediately.
13. Should any deviation from these procedures be observed, all work shall be suspended until satisfactory steps have been taken to insure compliance.
14. Except as specifically provided herein, all requirements of the vehicle code and other applicable laws must be complied with in all particulars.
15. Work shall be limited to normal working hours unless otherwise specifically authorized on the permit. Permittee will be required to deposit an amount equal to four-hours minimum of overtime per day for inspection charges, if work is permitted beyond normal working hours, weekends or holidays.

STATE OF CALIFORNIA – DEPARTMENT OF TRANSPORTATION

CONVENTIONAL HIGHWAY MOBILE WORK SPECIAL PROVISIONS

TR-0170 (08/95)

LANE WIDTH REMAINING FOR TRAFFIC IN METERS	APPROACH SPEED (km/h)	STOP DURATION IN MINUTES	TYPE OF TRAFFIC CONTROL REQUIRED
3 (10 ft) or more	90 (55 mph) or more	10 or more	Standard Plan T11 or T13
		Less than 10	Flashing/rotating amber lights on vehicle
	Less than 90 (55 mph)	10 or more	Flashing/rotating amber lights on vehicle and place cones 100 m (300 ft) @ 15 m (50 ft) spacing upstream from work area
		Less than 10	Flashing/rotating amber lights on vehicle
Less than 3 (10ft)	90 (55 mph) or more	10 or more	Standard Plan T-11 or T13
		Less than 10	Standard Plan T-11 or T13 or Shadow Vehicle Escort
	Less than 90 (55 mph)	10 or more	Standard Plan T-11 or T13 or Shadow Vehicle Escort
		Less than 10	Standard Plan T-11 or T13 or Shadow Vehicle Escort

NOTES:

1. MOBILE WORK IS CONSIDERED TO BE ENCROACHMENT ACTIVITIES THAT INCLUDE SLOW CONTINUOUS MOTIONS AND/OR FREQUENT STOPS WITHIN A TRAFFIC LANE.
2. TRAFFIC SHALL NOT BE MOVED ACROSS THE CENTERLINE STRIPE OF ANY HIGHWAY WITHOUT A STANDARD LANE CLOSURE OR OTHER APPROVED TRAFFIC CONTROL.
3. ON HIGHWAYS WITH PAVED SHOULDERS OF 2.4 M (8ft) OR MORE IN WIDTH, AND WHERE WORK IS TO BE CONDUCTED WITHIN 2.0 M (6ft) OF THE TRAVELED WAY, A SHOULDER CLOSURE PER STANDARD PLAN T10 SHALL BE IMPLEMENTED.
4. SHADOW VEHICLE ESCORTS ARE VEHICLES WEIGHING A MINIMUM OF 8200 KG (18000 LBS) AND SHALL BE EQUIPPED WITH A TRUCK MOUNTED CRASH CUSHION. A “LANE CLOSED” SIGN PANEL AND A FLASHING ARROW SIGN SHALL BE MOUNTED ON THE REAR OF THE SHADOW VEHICLE FOR A MULTILANE HIGHWAY. A “DO NOT PASS” SIGN PANEL SHALL BE MOUNTED ON THE REAR OF THE SHADOW VEHICLE FOR A 2-LANE HIGHWAY.
5. PERMITEES MAY CONTACT CALTRANS MAINTENANCE REGIONAL OFFICE FOR SHADOW VEHICLE ESCORTS. CALTRANS MAINTENANCE WILL PROVIDE SUCH ASSISTANCE WHEN AVAILABLE. CALTRANS IS TO BE REIMBURSED BY THE PERMITTEE.
6. ANY WORKING HOUR RESTRICTIONS ARE TO BE INCLUDED WITHIN THE ENCROACHMENT PERMIT OR AS DETERMINED BY THE DEPARTMENTS’ S REPRESENTATIVE.

DRAINAGE - ROOF AND SURFACE, MINOR (DM) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable.

1. Drains must be restricted to the exclusive purpose of draining rain water from the roof of permittee's building and/or paved parking lot. Drains if used for any other purpose, such as draining waste water or domestic supply water into the highway, will not be authorized. Drains shall be installed at right angles to the curb line unless otherwise authorized.
2. Removal of PCC Sidewalks or Curbs: Concrete sidewalks or curbs shall be saw cut to the nearest score marks and replaced equal in dimension to that removed with score marks matching existing adjacent sidewalk or curb.
3. After pipe drains are installed, curb and sidewalk shall be replaced with Portland Cement Concrete in accordance with State Standard Specifications.

DRIVEWAY, COMMERCIAL (RC) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

1. Asphalt Concrete or PCC pavement shall be saw-cut at conform location.
2. Excavations made within the limits of the right of way shall be backfilled before leaving the work for the night unless otherwise authorized by State's representative. After backfilling, temporary surfacing shall be placed if required by State's representative.
3. The permittee shall contact State's representative before placing structural section materials for the roadway pavement.
4. The approach fill area shall slope away from the highway pavement or improved shoulder and shall be so constructed as to avoid any flowing water reaching the traveled way and to avoid pocketing or ponding of water.
5. If not shown on project plans, the road approach or driveway shall conform to the "Standard Private and Commercial Road Approach in Rural Areas with Unimproved Frontage on Conventional State Highway".

DRIVEWAY RECONSTRUCTION (RM) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are applicable:

1. Where reconstruction requires removal of existing asphalt concrete pavement, it shall be either saw-cut before removal or removed by grinding.
2. Existing drainage shall not be impaired.

DRIVEWAYS, SINGLE FAMILY (RS) SPECIAL PROVISIONS

In addition to the attached General Provision (TR-0045), the following special provisions are applicable:

I. RURAL LOCATIONS

1. The driveway shall be surfaced with a minimum of 3" (76 mm) of asphalt concrete placed on 6" (152 mm) of well graded and compacted aggregate base and shall conform to the existing pavement.
2. Existing drainage shall not be impaired. Either a valley gutter or a culvert shall be provided.
3. Where a culvert is installed, it shall be installed in the flowline of the existing drainage ditch at a slope to provide maximum drainage.
4. A standard tapered end section shall be installed at the inlet and outlet of the culvert.
5. Any change in the existing drainage pattern, whether occasioned by increase or diversion, and the cost of any damage, repair or restoration of the State highway right of way shall be the responsibility of the permittee.
6. Driveway installation shall conform to the attached plan, "Standard Private and Commercial Road approach in Rural Areas with unimproved Frontage in Conventional State Highway".

II. URBAN LOCATIONS

1. Where curbs exist, the driveway structural section shall be a minimum of 4" (102 mm) of Portland Cement Concrete (PCC) over 6" (152 mm) of aggregate base.
2. Driveway details shall comply with State standards unless local standards exceed the State's.
3. Any existing utility boxes must be either relocated or adjusted to grade at the permittee's expense.
4. Removal of PCC Sidewalks or Curbs: sidewalks or curbs shall be saw cut to the nearest score marks and replaced equal in dimension to that removed with score marks matching existing adjacent sidewalk or curb.

EARLY ENTRY (SC) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

1. In the event contract is not awarded to permittee, he/she is liable for all charges for surveying material inspection and construction inspection by State personnel relating to this permit.
2. Prior to starting any work under this permit, the contractor will sign Attachment No.1 and return it to the State's representative.

ELECTRIC UTILITY TREE PRUNING AND REMOVAL SPECIAL PROVISIONS

TR – 0159 (Rev. 12/2001)

These special provisions are intended for tree pruning purposes done by Electrical Utility owners or their contractors. These special provisions are not intended for use in conjunction with encroachment permits issued for outdoor advertising or for non-utility tree pruning.

I. GENERAL

- A. In partnership with Caltrans, this permit shall not restrict an Electric Utility owner from complying with applicable California Public Resources Codes, California Public Utility Commission (CPUC) General Orders, and other Federal, State, or local laws that require clearances between vegetation and energized power lines.

Work may only be performed by the contractor(s) listed on this permit, or contractor(s) who have obtained a Double Permit (DP) in conjunction with the utility owners' permit.

- B. This permit authorizes the pruning/removal of trees located on State rights-of-way, and/or access onto the State rights-of-way to the location for pruning/removal of trees that are located outside of the State rights-of-way.
- C. Scheduling of work may be restricted by Caltrans. Traffic volumes for special events, commute traffic and other high volume traffic flows may restrict pruning hours and/or days.
1. Traffic control is generally authorized from 9 a.m. to 3 p.m., Monday through Friday, excluding holidays. Extended hours for traffic control, may be authorized by Caltrans.
 2. All traffic control shall conform to State Standard Plan requirements. When required, the use of a flashing arrow board is MANDATORY.
- D. All debris, cuttings and/or tree limbs shall be removed from State rights-of-way, and the work area must be left in a safe and presentable condition at the end of each workday. In areas where the spread of disease or insects is a concern, tree limbs and wood shall be disposed in accordance with requirements of Federal, State and local agencies. When approved by Caltrans, clean loads of wood chips may be placed only at designated locations within the State rights-of-way, so as not to create a fire hazard, attract illegal dumping or obstruct drainage ditches or inlets.
- E. All pruning shall be in compliance with ANSI A300-1995, the American National Standard for Tree Care Operations. Tree, Shrub and Other Woody Plant Maintenance-Standard Practices and the International Society of Arboriculture (ISA) Tree-Pruning Guidelines, 1995 or subsequent versions thereof.
- F. All operations of work shall be suspended during inclement weather or fog when lane or shoulder closures are needed to perform the work. No work is allowed during periods of high winds that could spread debris into the traveled way.
- G. The Caltrans Maintenance Landscape Specialist may communicate the location of specific trees which are considered of high value because of their local community significance, historic landscape potential, or documented horticultural value. The Electric Utility owner may be required

to limit the amount of foliage removed from these high value trees in order to preserve their structure and appearance.

II. TREE PRUNING

In addition to the ANSI A300 standards and the ISA Tree Pruning Guidelines, the following requirements shall be followed:

- A. Directional pruning as defined in the ISA Tree-Pruning Guidelines may be performed on trees which will be pruned for the first time or trees which have had some pruning in the recent past. Trees which cannot be directionally pruned, may be submitted for consideration of removal.
- B. Initial severe “V” shaped directional pruning may be performed on trees only after review of the trees by Caltrans. Prior approval shall be obtained from the Caltrans District Landscape Specialist or Caltrans District Landscape Architect. Severe “V” directional pruning on any tree species along state or federal designated scenic highways requires review and approval from the Caltrans District Landscape Architect.
- C. Previously “rounded over” trees shall be maintained as in the past unless Caltrans and the Electric Utility owner determine the tree can be directionally pruned or the crown restored without causing structural defects that may cause the new growth to present a liability.
- D. Minimum clearances established by the CPUC General Orders, California Public Resources Code and other Federal and State laws must be adhered to. The amount of clearance beyond the established minimum shall be determined by Caltrans and the Utility company. The Utility company shall furnish the Caltrans district representative current CPUC and/or other regulatory agencies minimum clearance standards. For most locations, where conditions allow, a minimum pruning frequency should be established that would not require additional pruning for one year. Consideration shall be given to the species, health, growth habit and condition of each tree when determining the amount to prune. Branches should be cut to laterals or the parent branch and not at a pre-established clearing limit.
- E. Under most conditions, trees may be pruned during any season of the year. The timing of pruning of host trees (eucalyptus, pine, and elm) in areas of known disease or insect infestations may be restricted unless the specific host trees are not in compliance with California Public Resources Codes, CPUC General Orders and other Federal, State, or local laws, or if an immediate hazard exists to public safety.

III. TREE REMOVAL

Only trees which do not require replacement, compensation or mitigation planting may be removed under this permit.

- A. Volunteer growth from stumps and seedlings growing directly under the electrical lines which will ultimately grow into the electrical lines and have little or no value to the desired condition of the roadside may be removed without additional Caltrans approval.

Note: Seedlings are less than 4” (0.1 m) in diameter and less than 20’ (6.1 m) tall.

- B. Caltrans approval is required where clear cutting of all growth under the electrical lines is desired. Groups of seedlings or volunteer growth that provides a visual screen for adjacent development shall not be removed without review by Caltrans District Landscape Architect.
- C. A Caltrans District Landscape Specialist may approve other tree removals when one of the following criteria are met:
1. Any tree which, by mutual agreement, is a potential hazard that should be removed, such as; leaning, uprooted, or dead trees. Replacement trees, compensation or mitigation plantings are not required.
 2. Trees which have low species value or trees in obviously poor condition due to poor health, or severe structural defects, and which are not of high value, provide a highway screen, wildlife habitat or other landscape function. (The Western Chapter, International Society of Arboriculture Species Classification and Group Assignment pamphlet may be used as a reference to determine low species value.) Replacement trees, compensation or mitigation planting are not required.

Prior to tree removals under Section C, a Caltrans/Electric Utility Tree Removal Request shall be completed, signed by the Electric Utility Company authorized representative, and submitted to the Caltrans District Landscape Specialist. At least one legible photograph showing the tree(s) to be removed shall be provided by the Electric Utility Company and submitted with the tree removal request.

Trees shall not be removed until the Caltrans District Landscape Specialist approves and signs the Tree Removal Request. The Electric Utility Owner shall have a copy of the approved Tree Removal Request at the work site during removal operations.

- D. Removals requiring compensation, replacement trees or mitigation planting:

Compensation, replacement trees, or mitigation planting shall be required for trees of high value, with a historic landscape potential, trees which provide a highway screen, wildlife habitat, or other landscape function. Trees which require replacement, mitigation planting or compensation SHALL REQUIRE A SEPARATE PERMIT and approval by the District Landscape Architect. (The Western Chapter, International Society of Arboriculture Species Classification and Group Assignment Pamphlet may be used as a reference to determine high species value.)

IV. CHEMICAL CONTROL

- A. Upon approval by Caltrans to use chemicals, the electric utility owner shall also obtain approval by the County Agricultural Commissioner.
- B. Control of resprouting tree species shall be conducted using an integrated vegetation management program, which includes chemical and non-chemical methods.
- C. A pest control recommendation from a licensed Pest Control Advisor must be obtained, and a copy of the recommendation must be submitted to the State Landscape Specialist prior to chemical application.

FILMING - ACCIDENT RECONSTRUCTION SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions also applicable:

1. Permittee shall strictly comply with conditions of this permit. Minor variations require written Caltrans' State Representative approval; changes require a Caltrans Permit Rider.
2. Caltrans State representative or CHP may stop work not being performed in strict compliance with conditions of this permit.
3. UNLESS SPECIFICALLY ALLOWED IN THIS PERMIT, WETTING ROADWAYS IS STRICTLY PROHIBITED.
4. UNLESS SPECIFICALLY ALLOWED IN THIS PERMIT, TRAFFIC SHALL NOT BE DETOURED.
5. UNLESS SPECIFICALLY ALLOWED IN THIS PERMIT, STAGED ACCIDENTS, AND PYROTECHNICS ARE STRICTLY PROHIBITED.
6. Road closures and detours, if specifically allowed in this permit, require state specification advance warning signs and traffic control devices provided and installed to Caltrans standards by qualified private traffic control companies.
7. Traffic control activities shall be approved by Caltrans' State Representative prior to institution.
8. Accident reconstruction filming involving aircraft shall be done in strict compliance with FAA regulations.
9. When filming or photography is permitted, stationary cameras adjacent to roadways open to public traffic, shall be located at least 10' (3.0 m) from edge of pavement or at least 2' (0.6 m) behind curb face on raised sidewalks. Cameras shall NOT be allowed in medians of roadways open to public traffic. At locations of fixed cameras, Permittee's staff shall not exceed four persons.
10. On freeways, permittee's personnel, vehicles, and equipment not involved in the permitted activities shall be legally located outside freeway right of way.
11. On conventional highways open to public traffic, permittee's personnel, vehicles, and equipment not involved in the permitted activities, shall be legally located off the traveled way and not interfere with free traffic and pedestrian flow.
12. Highway operational problems require immediate cessation of permitted activities.
13. When filming or photography is permitted, lighting fixtures, mirrors, reflectors, and supports shall be placed to not present a glare or safety hazard.
14. Permittee equipment situated on sidewalks open to public, or interfering with pedestrians, shall be provided with devices for pedestrian protection.
15. Permittee vehicles operating in public traffic shall conform to California vehicle code.
16. Well functioning communications equipment shall be supplied by Permittee in sufficient quantity for all organizations involved.

FILMING - AIRCRAFT, PYROTECHNICS, STUNTS, ETC. (FS) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are applicable:

1. The Permit Inspector or the CHP has the authority to stop any or all work that is not being performed in strict compliance with the provisions of this permit.
2. Traffic shall not be detoured from the State Highway without the written approval of the Permit Engineer.
3. Any filming involving the use of any type aircraft shall be done in accordance with FAA regulations.
4. All approved closures shall be done by a qualified traffic control contractor (retained by the Permittee) using current State Specifications and Standards.
5. Well functioning communications equipment shall be supplied by the Permittee in sufficient quantity for all parties involved in the activity.
6. Operational decisions and/or emergency situations may require the roadway to be reopened immediately. This decision may be made by either the CHP or the Permit Engineer.
7. Film company vehicles, personnel, camera and equipment shall be parked at least 9.1 m (30') from the edge of roadway unless protected by existing barriers.
8. A maximum of four (4) persons associated with the filming company will be allowed at fixed camera locations.
9. Stopping or slowing vehicles being filmed on the highway shall not be allowed.
10. Wetting of the roadway is prohibited.

FILMING - INTERMITTENT TRAFFIC CONTROL (FI) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

1. Permittee shall comply with this permit. Permit conditions shall not be modified without a Caltrans permit rider.
2. Permittee shall provide signs and equipment for traffic control conforming to the attached plan at permittee expense.
3. The CHP officer in charge shall be present at initiation of permit authorized filming operations.
4. Wetting roadways is prohibited. 5. Traffic shall not be detoured.
5. Stunts, staged accidents, and pyrotechnics are strictly prohibited.
6. Filming involving aircraft flying over state highways at an altitude of 500 feet or less is prohibited.
7. Specific camera locations require on site approval by CHP officer in charge.
8. Stationary cameras shall be mounted at least 10' (3.0 m) from edge of pavement or at least 2' (0.6 m) behind curb face on raised sidewalks. Unless specifically allowed in this permit cameras shall not be in medians.
9. Permittee's personal vehicles and equipment shall be legally located off the traveled way and not interfere with free traffic or pedestrian flow.
10. Highway operational problems may require immediate cessation of permitted activities.
11. Intermittent traffic breaks normally not to exceed five minutes duration, are approved by the CHP officer in charge, and provided by uniformed peace officers in marked law enforcement vehicles.
12. Permitted lighting fixtures, mirrors, reflectors, and supports shall not present a glare or other safety hazard.
13. Permittee equipment situated on sidewalks or interfering with pedestrians shall be provided with devices for pedestrian protection.
14. Vehicles with lights or cameras mounted or attached that, in the opinion of the CHP officer in charge, interfere with the driver's view, shall be legally towed with a drawbar.
15. Filmed vehicles used in filming dialogue between driver and passenger shall be legally towed with a drawbar.
16. Properly functioning communications equipment shall be supplied by permittee in sufficient quantity for all organizations involved.

FILMING - NO MOVING TRAFFIC (FO) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

1. The Permit Inspector or the CHP has the authority to stop any or all work that is not being performed in strict compliance with the provisions of this permit.
2. Traffic shall not be detoured from the State highway without the written approval of the Permit Engineer.
3. All of the permittee's production vehicles and equipment shall be legally parked off the traveled way so that the equipment and personnel do not interfere with the free flow of traffic and/or pedestrians.
4. Any filming involving the use of any type aircraft shall be done in accordance with FAA regulations.
5. All cables and step extensions that cross the sidewalk shall be shielded or coned for pedestrian traffic.
6. On conventional highways, stationary cameras shall be mounted
7. in a position at least 10' (3.0 m) from the edge of pavement or at least 2' (0.6 m) behind curb face on raised sidewalks. No camera will be allowed on the raised median.
8. No lights shall be erected on the traveled way.
9. The location of camera within the right of way shall be approved by the State's representative.
10. Intermittent traffic breaks [not to exceed three (3) minutes] shall be approved and provided by the CHP.
11. Well functioning communications equipment shall be supplied by the permittee in sufficient quantity for all organizations involved in the event.
12. Wetting of the roadway is prohibited.

FILMING - TRAFFIC CONTROL (FL) SPECIAL PROVISIONS

In addition to the standard attached General Provisions (TR-0045), the following special provisions are also applicable.

1. The permit Inspector or the CHP has the authority to stop any or all work that is not being performed in strict compliance with the provisions of this permit.
2. Traffic shall not be detoured from the State Highway without the written approval of the Permit Engineer.
3. All of the permittee's production vehicles and equipment shall be legally parked off the traveled way so that the equipment and personnel do not interfere with the free flow of traffic and/or pedestrians.
4. Any filming involving the use of any type aircraft shall be done in accordance with the FAA regulations.
5. On conventional highways, stationary cameras shall be mounted in a position at least 10' (3.0 m) from the edge of pavement or on raised sidewalks. No camera will be allowed on the raised median.
6. Traffic control shall not exceed three (3) minutes duration.
7. Intermittent traffic breaks (not to exceed three (3) minutes) shall be approved and provided by the CHP.
8. Any vehicle involved in filming dialogue between the driver and someone else shall be legally towed with a tow bar.
9. Any vehicle that has lights and/or cameras mounted or attached, that in the opinion of either Caltrans or the CHP interferes with the driver's view, shall be legally towed with a tow bar.
10. All traffic control shall be approved through the State's representative and/or the CHP prior to filming.
11. Any vehicles in public traffic including camera truck and towed picture car or camera truck and separate picture cars must conform to the California Vehicle Code requirement while filming. A CHP officer must be in attendance during the filming.
12. Well functioning communications equipment shall be supplied by the permittee in sufficient quantity for all organizations involved in the event.
13. Wetting of the roadway is prohibited.

ENCROACHMENT PERMIT FILMING - WETDOWN PROVISIONS

TR-O169 (NEW. 3/95)

1. Traffic control for wetdowns shall be in conformance with the Department of Transportation Standard Plans T-10, T-11, T-12, T-13, or T-14, whichever is applicable.
2. Placement of signs shall be far in advance of the work site, to accommodate the backup queue of traffic when traffic is stopped for filming purposes. These traffic breaks should not exceed five (5) minutes at each given occurrence.
3. Placement of "Wet Pavement Ahead" signs, 48" X 48" black lettering on an orange background, shall be required at all wetdown worksites. These signs are required to meet Caltrans requirements for lettering size and made by a recognized sign manufacturer. Placement of these signs shall be in succession of the "Road Work Ahead" sign (C-18), in both directions of traffic.
4. When traffic control is to be maintained by law enforcement officers (i.e. C.H.P., P.D. , or S.O.), a minimum of 3 officers is normally required, (flaggers may not be required). Officers and their vehicles would be utilized in lieu of flaggers.
5. When traffic control safety devices are required (i.e. signs, cones, lights), placement of these devices shall be installed by a recognized traffic control contractor.
6. If it is determined by Caltrans and C.H.P. that flaggers are required, the traffic control contractor shall supply or utilize his employees as the flaggers.
7. Caltrans and C.H.P. reserve the right to require the reopening of the highway at any given time as may be necessary. All cost shall be borne by the permittee.
8. C.H.P. will be present during all wetdown filming operations. For safety purposes C.H.P. will determine when traffic is allowed over wetdown area.
9. In the event of an adverse condition or incident that would require the response of Caltrans Traffic Management Team, this permit operation will be terminated.
10. No wetdown will be allowed if there is a possibility of creating a ponding situation and/or flooding of the highway.
11. Placement and time of the wetdown will be determined by Caltrans.

STATE OF CALIFORNIA, DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT GENERAL PROVISIONS
TR-0045 (REV. 08/2004)

1. **AUTHORITY:** The Department's authority to issue encroachment permits is provided under, Div. 1, Chpt. 3, Art. 1, Sect. 660 to 734 of the Streets and Highways Code.
2. **REVOCATION:** Encroachment permits are revocable on five days notice unless otherwise stated on the permit and except as provided by law for public corporations, franchise holders, and utilities. These General Provisions and the Encroachment Permit Utility Provisions are subject to modification or abrogation at any time. Permittees' joint use agreements, franchise rights, reserved rights or any other agreements for operating purposes in State highway right of way are exceptions to this revocation.
3. **DENIAL FOR NONPAYMENT OF FEES:** Failure to pay permit fees when due can result in rejection of future applications and denial of permits.
4. **ASSIGNMENT:** No party other than the permittee or permittee's authorized agent is allowed to work under this permit.
5. **ACCEPTANCE OF PROVISIONS:** Permittee understands and agrees to accept these General Provisions and all attachments to this permit, for any work to be performed under this permit.
6. **BEGINNING OF WORK:** When traffic is not impacted (see Number 35), the permittee shall notify the Department's representative, two (2) days before the intent to start permitted work. Permittee shall notify the Department's Representative if the work is to be interrupted for a period of five (5) days or more, unless otherwise agreed upon. All work shall be performed on weekdays during regular work hours, excluding holidays, unless otherwise specified in this permit.
7. **STANDARDS OF CONSTRUCTION:** All work performed within highway right of way shall conform to recognized construction standards and current Department Standard Specifications, Department Standard Plans High and Low Risk Facility Specifications, and Utility Special Provisions. Where reference is made to "Contractor and Engineer," these are amended to be read as "Permittee and Department representative."
8. **PLAN CHANGES:** Changes to plans, specifications, and permit provisions are not allowed without prior approval from the State representative.
9. **INSPECTION AND APPROVAL:** All work is subject to monitoring and inspection. Upon completion of work, permittee shall request a final inspection for acceptance and approval by the Department. The local agency permittee shall not give final construction approval to its contractor until final acceptance and approval by the Department is obtained.
10. **PERMIT AT WORKSITE:** Permittee shall keep the permit package or a copy thereof, at the work site and show it upon request to any Department representative or law enforcement officer. If the permit package is not kept and made available at the work site, the work shall be suspended.
11. **CONFLICTING ENCROACHMENTS:** Permittee shall yield start of work to ongoing, prior authorized, work adjacent to or within the limits of the project site. When existing encroachments conflict with new work, the permittee shall bear all cost for rearrangements, (e.g., relocation, alteration, removal, etc.).
12. **PERMITS FROM OTHER AGENCIES:** This permit is invalidated if the permittee has not obtained all permits necessary and required by law, from the Public Utilities Commission of the State of California (PUC), California Occupational Safety and Health Administration (Cal-OSHA), or any other public agency having jurisdiction.
13. **PEDESTRIAN AND BICYCLIST SAFETY:** A safe minimum passageway of 4' (1.21 meter) shall be maintained through the work area at existing pedestrian or bicycle facilities. At no time shall pedestrians be diverted onto a portion of the street used for vehicular traffic. At locations where safe alternate passageways cannot be provided, appropriate signs and barricades shall be installed at the limits of construction and in advance of the limits of construction at the nearest crosswalk or intersection to detour pedestrians to facilities across the street.
14. **PUBLIC TRAFFIC CONTROL:** As required by law, the permittee shall provide traffic control protection warning signs, lights, safety devices, etc., and take all other measures necessary for traveling public's safety. Day and night time lane closures shall comply with the MUTCD and CA Supplement (Part 6, Temporary Traffic Control), Standard Plans, and Standard Specifications for traffic control systems. These General Provisions are not intended to impose upon the permittee, by third parties, any duty or standard of care, greater than or different from, as required by law.
15. **MINIMUM INTERFERENCE WITH TRAFFIC:** Permittee shall plan and conduct work so as to create the least possible inconvenience to the traveling public; traffic shall not be unreasonably delayed. On conventional highways, permittee shall place properly attired flagger(s) to stop or warn the traveling public in compliance with the MUTCD and CA Supplement (Chapter 6E, Flagger Control).
16. **STORAGE OF EQUIPMENT AND MATERIALS:** The storage of equipment or materials is not allowed within State highway right-of-way, unless specified within the Special Provisions of this specific encroachment permit. If Encroachment Permit Special Provisions allow for the storage of equipment or materials within the State right of way, the equipment and material storage shall comply with Standard Specifications, Standard Plans, Special Provisions, and the Highway Design Manual. The clear recovery zone widths must be followed and are the minimum desirable for the type of facility indicated below: freeways and expressways-9 m, conventional highways (no curbs)-6 m, conventional highways (with curbs)- 0.5 m. If a fixed object cannot be eliminated, moved outside the clear recovery zone, or modified to be made yielding, it should be shielded by a guardrail or a crash cushion.
17. **CARE OF DRAINAGE:** Permittee shall provide alternate drainage for any work interfering with an existing drainage facility in compliance with the Standard Specifications, Standard Plans and/or as directed by the Department's representative.
18. **RESTORATION AND REPAIRS IN RIGHT OF WAY:** Permittee is responsible for restoration and repair of State highway right of way resulting from permitted work (State Streets and Highways Code, Sections 670 et. seq.).
19. **RIGHT OF WAY CLEAN UP:** Upon completion of work, permittee shall remove and dispose of all scraps, brush, timber, materials, etc. off the right of way. The aesthetics of the highway shall be as it was before work started.

20. COST OF WORK: Unless stated in the permit, or a separate written agreement, the permittee shall bear all costs incurred for work within the State right of way and waives all claims for indemnification or contribution from the State.

21. ACTUAL COST BILLING: When specified in the permit, the Department will bill the permittee actual costs at the currently set hourly rate for encroachment permits.

22 AS-BUILT PLANS: When required, permittee shall submit one (1) set of as-built plans within thirty (30) days after completion and approval of work in compliance with requirements listed as follows:

1. Upon completion of the work provided herein, the permittee shall send one vellum or paper set of As-Built plans, to the State representative. Mylar or paper sepia plans are not acceptable.
2. All changes in the work will be shown on the plans, as issued with the permit, including changes approved by Encroachment Permit Rider.
3. The plans are to be stamped or otherwise noted AS-BUILT by the permittee's representative who was responsible for overseeing the work. Any original plan that was approved with a State stamp, or Caltrans representative signature, shall be used for producing the As-Built plans.
4. If As-Built plans include signing or striping, the dates of signing or striping removal, relocation, or installation shall be shown on the plans when required as a condition of the permit. When the construction plans show signing and striping for staged construction on separate sheets, the sheet for each stage shall show the removal, relocation or installation dates of the appropriate staged striping and signing.
5. As-Built plans shall contain the Permit Number, County, Route, Post Mile, and Kilometer Position on each sheet.
6. Disclaimer statement of any kind that differ from the obligations and protections provided by Sections 6735 through 6735.6 of the California Business and Professions Code, shall not be included on the As-Built plans. Such statements constitute non-compliance with Encroachment Permit requirements, and may result in the Department of Transportation retaining Performance Bonds or deposits until proper plans are submitted. Failure to comply may also result in denial of future permits, or a provision requiring a public agency to supply additional bonding.

23. PERMITS FOR RECORD PURPOSES ONLY: When work in the right of way is within an area under a Joint Use Agreement (JUA) or a Consent to Common Use Agreement (CCUA), a fee exempt permit is issued to the permittee for the purpose of providing a notice and record of work. The Permittee's prior rights shall be preserved without the intention of creating new or different rights or obligations. "Notice and Record Purposes Only" shall be stamped across the face of the permit.

24. BONDING: The permittee shall file bond(s), in advance, in the amount set by the Department. Failure to maintain bond(s) in full force and effect will result in the Department stopping of all work and revoking permit(s). Bonds are not required of public corporations or privately owned utilities, unless permittee failed to comply with the provision and conditions under a prior permit. The surety company is responsible for any latent defects as provided in California Code of Civil Procedures, Section 337.15. Local agency permittee shall comply with requirements established as follows: In recognition that project construction work done on State property will not be directly funded and paid by State, for the purpose of protecting stop notice claimants and the interests of State relative to successful project completion, the local agency permittee agrees to require the construction contractor furnish both a payment and performance bond

in the local agency's name with both bonds complying with the requirements set forth in Section 3-1.02 of State's current Standard Specifications before performing any project construction work. The local agency permittee shall defend, indemnify, and hold harmless the State, its officers and employees from all project construction related claims by contractors and all stop notice or mechanic's lien claimants. The local agency also agrees to remedy, in a timely manner and to State's satisfaction, any latent defects occurring as a result of the project construction work.

25. FUTURE MOVING OF INSTALLATIONS: Permittee understands and agrees to rearrange a permitted installation upon request by the Department, for State construction, reconstruction, or maintenance work on the highway. The permittee at his sole expense, unless under a prior agreement, JUA, or a CCUA, shall comply with said request.

26. ARCHAEOLOGICAL/HISTORICAL: If any archaeological or historical resources are revealed in the work vicinity, the permittee shall immediately stop work, notify the Department's representative, retain a qualified archaeologist who shall evaluate the site, and make recommendations to the Department representative regarding the continuance of work.

27. PREVAILING WAGES: Work performed by or under a permit may require permittee's contractors and subcontractors to pay appropriate prevailing wages as set by the Department of Industrial Relations. Inquiries or requests for interpretations relative to enforcement of prevailing wage requirements are directed to State of California Department of Industrial Relations, 525 Golden Gate Avenue, San Francisco, California 94102.

28. RESPONSIBILITY FOR DAMAGE: The State of California and all officers and employees thereof, including but not limited to the Director of Transportation and the Deputy Director, shall not be answerable or accountable in any manner for injury to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee, or for damage to property from any cause. The permittee shall be responsible for any liability imposed by law and for injuries to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee, or for damage to property arising out of work, or other activity permitted and done by the permittee under a permit, or arising out of the failure on the permittee's part to perform his obligations under any permit in respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or other activity or at any subsequent time, work or other activity is being performed under the obligations provided by and contemplated by the permit.

The permittee shall indemnify and save harmless the State of California, all officers, employees, and State's contractors, thereof, including but not limited to the Director of Transportation and the Deputy Director, from all claims, suits or actions of every name, kind and description brought for or on account of injuries to or death of any person, including but not limited to the permittee, persons employed by the permittee, persons acting in behalf of the permittee and the public, or damage to property resulting from the performance of work or other activity under the permit, or arising out of the failure on the permittee's part to perform his obligations under any permit in respect to maintenance or any other obligations, or resulting from defects or obstructions, or from any cause whatsoever during the progress of the work, or other activity or at any subsequent time, work or other activity is being performed under the obligations provided by and contemplated by the permit, except as otherwise provided by statute.

The duty of the permittee to indemnify and save harmless includes the duties to defend as set forth in Section 2778 of the Civil Code. The

permittee waives any and all rights to any type of expressed or implied indemnity against the State, its officers, employees, and State contractors. It is the intent of the parties that the permittee will indemnify and hold harmless the State, its officers, employees, and State's contractors, from any and all claims, suits or actions as set forth above regardless of the existence or degree of fault or negligence, whether active or passive, primary or secondary, on the part of the State, the permittee, persons employed by the permittee, or acting on behalf of the permittee.

For the purpose of this section, "State's contractors" shall include contractors and their subcontractors under contract to the State of California performing work within the limits of this permit.

- 29. NO PRECEDENT ESTABLISHED:** This permit is issued with the understanding that it does not establish a precedent.

30. FEDERAL CIVIL RIGHTS REQUIREMENTS FOR PUBLIC ACCOMMODATION:

A. The permittee, for himself, his personal representative, successors in interest, and assigns as part of the consideration hereof, does hereby covenant and agree that:

1. No person on the grounds of race, color, or national origin shall be excluded from participation in, be denied the benefits of, or be otherwise subjected to discrimination in the use of said facilities.
2. That in connection with the construction of any improvements on said lands and the furnishings of services thereon, no discrimination shall be practiced in the selection and retention of first-tier subcontractors in the selection of second-tier subcontractors.
3. That such discrimination shall not be practiced against the public in their access to and use of the facilities and services provided for public accommodations (such as eating, sleeping, rest, recreation), and operation on, over, or under the space of the right of way.
4. That the permittee shall use the premises in compliance with all other requirements imposed pursuant to Title 15, Code of Federal Regulations, Commerce and Foreign Trade, Subtitle A. Office of the Secretary of Commerce, Part 8 (15 C.F.R. Part 8) and as said Regulations may be amended.
5. That in the event of breach of any of the above nondiscrimination covenants, the State shall have the right to terminate the permit and to re-enter and repossess said land and the land and the facilities thereon, and hold the same as if said permit had never been made or issued.

- 31. MAINTENANCE OF HIGHWAYS:** The permittee agrees, by acceptance of a permit, to properly maintain any encroachment. This assurance requires the permittee to provide inspection and repair any damage, at permittee's expense, to State facilities resulting from the encroachment.

- 32. SPECIAL EVENTS:** In accordance with subdivision (a) of Streets and Highways Code Section 682.5, the Department of Transportation shall not be responsible for the conduct or operation of the permitted activity, and the applicant agrees to defend, indemnify, and hold harmless the State and the city or county against any and all claims arising out of any activity for which the permit is issued.

Permittee understands and agrees that it will comply with the obligations of Titles II and III of the Americans with Disabilities Act of 1990 in the conduct of the event, and further agrees to indemnify and save harmless the State of California, all officers and employees thereof, including but not limited to the Director of Transportation, from any claims or liability arising out of or by virtue of said Act.

- 33. PRIVATE USE OF RIGHT OF WAY:** Highway right of way shall not be used for private purposes without compensation to the State. The gifting of public property use and therefore public funds is prohibited under the California Constitution, Article 16.

- 34. FIELD WORK REIMBURSEMENT:** Permittee shall reimburse State for field work performed on permittee's behalf to correct or remedy hazards or damaged facilities, or clear debris not attended to by the permittee.

- 35. NOTIFICATION OF DEPARTMENT AND TMC:** The permittee shall notify the Department's representative and the Transportation Management Center (TMC) at least 7 days before initiating a lane closure or conducting an activity that may cause a traffic impact. A confirmation notification should occur 3 days before closure or other potential traffic impacts. In emergency situations when the corrective work or the emergency itself may affect traffic, TMC and the Department's representative shall be notified as soon as possible.

- 36. SUSPENSION OF TRAFFIC CONTROL OPERATION:** The permittee, upon notification by the Department's representative, shall immediately suspend all lane closure operations and any operation that impedes the flow of traffic. All costs associated with this suspension shall be borne by the permittee.

- 37. UNDERGROUND SERVICE ALERT (USA) NOTIFICATION:** Any excavation requires compliance with the provisions of Government Code Section 4216 et. seq., including, but not limited to notice to a regional notification center, such as Underground Service Alert (USA). The permittee shall provide notification at least 48 hours before performing any excavation work within the right of way.

MAIL BOX (MB) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

I. LOCATION

1. Whenever possible, mailboxes shall be located outside State highway right of way (R/W).
2. Mailboxes may be located inside highway right of way in compliance with A Guide For Erecting Mailboxes on Highways (May 24, 1984), published by the American Association of State Highway and Transportation Officials.
3. Coordination with the local postmaster is required to determine the exact site.
4. In rural areas, mail boxes shall be located as far off the traveled way as possible, but normally shall be no closer than 10' (3.0 m) from the edge of traveled way to the face of the box.
5. In areas where curbs or dikes exist, mailboxes shall be located no closer than 1' (0.3 m) behind the face of curb or dike to face of box.

II. INSTALLATION

1. Installation shall be as shown in the "Guide".
2. Masonry pedestals or masonry metal art work around the installation is strictly prohibited.
3. Postmaster approved, neighborhood delivery and collection box units (NDCBU) shall be installed in a location where they will not pose a hazard to errant vehicles.

NOTIFICATION OF ENCROACHMENT SPECIAL PROVISIONS

When highway or ramp closures, detours, and work with significant traffic impacts occur, use paragraphs 1, 2, and 3. Additional possible impacted activities include: CD, MC, FL, and FS permits.

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

Media Notification for Special Events (SE):

1. Permittee shall verify to State's representative that local or regional media, including radio, television or newspapers serving the area affected by the special event, have been notified by letter or press release format. Media contact must allow sufficient time for print or broadcast two days prior to the permitted activity. Letter or press release shall include date, time, location, duration, permitted activity, and identify detours for impacted State highways and local roads.

Highway Signing for Special Events (SE):

Public Notification Signs

2. Permittee shall place public notification signs at locations designated on the approved signing plan a minimum of seven (7) calendar days before the activity begins. Signs shall be constructed and installed to Caltrans specifications and standards.

Detour Signs

3. Permittee shall place detour signs prior to the permitted activity in accordance with State Standard Specifications.

When encroachment activities create significant traffic impacts, used paragraph 4 for local agency notification. Possible impacted activities include: SE, CD, MC, FL, and FS permits.

Local Agency Notification

4. Permittee shall make written notice to, and coordinate with, local emergency services, law enforcement agencies and public road departments seven (7) calendar days prior to the scheduled permitted activity. Letter copies shall be provided to the State's representative to evidence contacts.

When special event (SE) encroachments create significant traffic impacts use paragraph 5 for CHP notification.

CHP Notification

5. Permittee shall make written notice to, and coordinate with, CHP seven (7) calendar days before encroachment activities are scheduled. Letter copies shall be provided to the State's representative to evidence contacts.

PEDESTRIAN SAFETY (MCP) SPECIAL PROVISIONS

In addition to the attached General Provisions (Form TR-0045), the following special provisions are also applicable:

1. When the work area encroaches upon a sidewalk, walkway, or crosswalk area, special consideration must be given to pedestrian safety. Protective barricades, fencing, handrails and bridges, together with warning and guidance devices and signs must be utilized so that the passageway for pedestrians, especially blind and other physically handicapped, is safe and well defined and shown on the approved permit plan.
2. Pedestrian walkways and canopies within State Right of Way shall comply with the requirements of the applicable local agency or of the latest edition of the Uniform Building Code whichever contains the higher standards

RAILROAD GRADE CROSSING - MAINTENANCE (RX)

Annual Maintenance Standard Special Provisions

1. This permit does not authorize work on freeways, expressways or other activities not specifically provided for in this permit.
2. Work that reduces the vertical clearance over highways or changes the load carrying capacity of structures is not authorized by this permit.
3. Railroad work shall conform to Railroad, and applicable California Public Utilities Commission standards. Work affecting State highway facilities shall conform to current Caltrans standards.
4. Permittee may control or alter the flow of highway traffic only if absolutely necessary for public safety or to prevent a serious interruption of railroad service. Traffic control shall conform to Caltrans Traffic Control Systems published in the current State Standard Plans.
5. No excavation within 30' (9.1 m) of the traveled way shall be left open after daylight hours, unless specifically authorized and adequate protection of traffic is provided in accordance with the General Provisions "Protection of Traffic." Backfill and highway paving shall conform to Standard Specifications and the General Provisions.
6. Routine maintenance taking place from the State highway shall be conducted between 9 am and 3 p.m. or as directed by the State representative.
7. Methods of installation and time of work for replacing aerial lines for railroad communication shall be approved by the State representative.

SIDEWALKS (CS) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are applicable:

1. A State issued permit is required for any landscaping or tree installation, including installation of tree wells.
2. A separate permit must be obtained from Caltrans for any driveway, handicap-ramp installations or any sidewalks that are other than Portland Cement Concrete constructed in compliance with Caltrans Standard Specifications.
3. Traffic control is authorized only between 9 am and 3 p.m., Monday through Friday, holidays excluded. Any traffic control that requires lane closure shall be in compliance with the appropriate traffic control plan. Where required by the plan, the use of a flashing arrowboard is MANDATORY.
4. New curb and gutter installations shall be State Standard Type A2-6, unless necessary to conform to existing adjacent curb and gutter installations.
5. Normally, the back edge of a sidewalk shall be placed on the right of way line. Sidewalk width shall be minimum of 5' (1.5 m).
6. Alignment and grade of gutter and sidewalk shall match the existing.
7. Existing concrete curb and paved shoulder shall be saw cut to a neat line prior to excavating and forming. Existing concrete sidewalk shall be saw cut at the scoreline. Paved shoulder shall be replaced with asphalt concrete paving material equal "in kind" and thickness to existing shoulder and shall conform to lip of new curb and gutter.
8. Permittee shall be responsible for the relocation or adjustment of any utility required as the result of work authorized by this permit, and utility relocation shall be completed prior to the installation of any new curb, gutter or sidewalk.
9. A monolithic pour of sidewalk and curb and gutter shall not be permitted.

SPECIAL EVENTS (SE) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are applicable.

1. In accordance with subdivision (a) of Streets and Highways Code section 682.5, the Department of Transportation shall not be responsible for the conduct or operation of the permitted activity, and the applicant agree to indemnify and hold harmless the State and the city or county against any and all claims arising out of any activity for which the permit is issued.
2. Permittee understands and agrees that it will comply with the obligations of Titles II and III of the Americans with Disabilities Act of 1990 in the conduct of the event, and further agrees to indemnify and save harmless the State of California, all officers and employees thereof, including but not limited to the Director of Transportation, from any claims or liability arising out of or by virtue of said act.

ENCROACHMENT PERMIT STEEL PLATE BRIDGING UTILITY PROVISIONSTR -0157 (New 04/2002)

To accommodate excavation work, steel plate bridging may be necessary. All conditions for use of steel plate bridging should be set forth in the special provisions.

Consideration of steel plate bridging should take into account the following factors:

1. Traffic volume and composition.
2. Duration and size of the proposed excavation.
3. Weather conditions.

When backfilling operations of an excavation in the traveled way, whether transverse or longitudinal, cannot be properly completed within a work day, steel plate bridging with a non-skid surface and shoring (see Trenching & Shoring) may be required to preserve unobstructed traffic flow. In such cases, the following conditions shall apply:

1. Steel plate bridging on freeways is not allowed.
2. Steel plates used for bridging must extend a minimum of 12" (305 mm) beyond the edges of the trench.
3. Steel plate bridging shall be installed to operate with minimum noise.
4. The trench shall be adequately shored, as mentioned in Section 516.10, to support the bridging and traffic loads.
5. Temporary paving with cold asphalt concrete shall be used to feather the edges of the plates, if plate installation by Method (2) described below, is used.
6. Bridging shall be secured against displacement by using adjustable cleats, shims, or other devices.

As required by the district, steel plate bridging and shoring shall be installed using either Method (1) or (2):

Method 1 [For speeds greater than 45 mph (70 Km /hr)]:

The pavement shall be cold planed to a depth equal to the thickness of the plate and to a width and length equal to the dimensions of the plate.

Method 2 [For Speeds less than 45 mph (70 Km/hr)]:

Approach plate(s) and ending plate (if longitudinal placement) shall be attached to the roadway by a minimum of 2 dowels pre-drilled into the corners of the plate and drilled 2" (50 mm) into the pavement. Subsequent plates are butted to each other. Fine graded asphalt concrete shall be compacted to form ramps, maximum slope 8.5 % with a minimum 12" (305 mm) taper to cover all edges of the steel plates. When steel plates are removed, the dowel holes in the pavement shall be backfilled with either graded fines of asphalt concrete mix, concrete slurry or an equivalent slurry that is satisfactory to the Caltrans' representative.

The contractor is responsible for maintenance of the steel plates, shoring, asphalt concrete ramps, and ensuring that they meet minimum specifications. Unless specifically noted in the special provisions, or approved by the State representative, use of steel plate bridging should not exceed 4 consecutive working days in any given week. Backfilling of excavations shall be covered with a minimum 3" (75 mm) temporary layer of cold asphalt concrete.

The following table shows the advisory minimal thickness of steel plate bridging required for a given trench width (A-36 grade steel, designed for HS20-44 truck loading per Caltrans Bridge Design Specifications Manual).

<u>Trench Width</u>	<u>Minimum Plate Thickness</u>
10" (0.25 m)	1/2" (13 mm)
1'-11" (0.58 m)	3/4" (19 mm)
2'-7" (0.80 m)	7/8" (22 mm)
3'-5" (1.04 m)	1" (25 mm)
5'-3" (1.60 m)	1 1/4" (32 mm)

NOTE: For spans greater than 5'-3" (1.6 meters), a structural design shall be prepared by a California registered civil engineer.

All steel plates within the right of way whether used in or out of the traveled way shall be without deformation. Inspectors can determine the trueness of steel plates by using a straight edge and should reject any plate that is permanently deformed.

Steel plates used in the traveled portion of the highway shall have a surface that was manufactured with a nominal Coefficient Of Friction (COF) of 0.35 as determined by California Test Method 342 (See Appendix H, Encroachment Permits Manual). If a different test method is used, the permittee may utilize standard test plates with known coefficients of friction available from each Caltrans District Materials Engineer to correlate skid resistance results to California Test Method 342. Based on the test data, the permittee shall determine what amount of surface wear is acceptable, and independently ascertain when to remove, test, or resurface an individual plate.

Caltrans Inspectors should not enforce plate removal unless it is permanently deformed or delivered without the required surfacing. However, an inspector should document in a diary all contacts with the contractor.

A Rough Road sign (W33) with black lettering on an orange background may be used in advance of steel plate bridging. This sign is used along with any other required construction signing.

Surfacing requirements are not necessary for steel plates used in parking strips, on shoulders not used for turning movements, or on connecting driveways, etc., not open to the public.

CALTRANS ENCROACHMENT PERMITS MANUAL
Special Provisions to be inserted in APPENDIX K (Rev 09/03)

STRUCTURE WORK

Use these special provisions when Permit includes any capital improvement work (Capital Outlay Program or Permit Program) involving structure related facilities such as: modification to existing bridges, new bridges, all tunnels, underground structures, single and multi-cell culverts wider than 20' (6.1 m) measured in the direction of traffic, storage boxes, non-standard retaining walls, non-standard sound walls (including sound walls on retaining wall), earth retaining systems, bridge-mounted sign structures, overhead sign structures, pump plants, slope paving under bridges (including any paving or channel lining around bridge columns), seal slabs/boat sections, transit stations, and toll plazas.

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

1) BEGINNING OF WORK:

The PERMITTEE shall notify the Department's Representative, _____
(Name of Structures Area Construction Manager)

at _____ two (2) weeks before the intent to start permitted work to ensure coordination
(Phone Number)

with the Division of Structure Construction.

2) CONTRACT DOCUMENTS:

In addition to the number of as-advertised contract document sets required by the District Permit Engineer for district use, the PERMITTEE shall include a minimum of eleven (11) additional sets of contract documents (plans, special provisions and addenda) for use by the Caltrans Engineering Service Center. Upon approval of the permit application, the District Permit Office shall distribute the eleven additional sets of contract documents to:

State of California
Department of Transportation
Engineering Service Center
Office of Special Funded Projects, MS 9-2/7G
1801 30th Street
Sacramento, CA 95816

Depending on the work contemplated in the project, more copies may be required as determined by the District Permit Engineer and the Structures OSFP Liaison Engineer.

3) AS-BUILT & OTHER COMPLETION RECORDS

Within sixty (60) days following completion and acceptance of the project construction contract, PERMITTEE shall furnish acceptable completion records, which are applicable to the project, to the STATE representatives shown in the following table. Completion records shall be submitted in accordance with the "Submittal Instructions and Forms" shown in the following table. When requested by the PERMITTEE, the STATE representative shall furnish the instructions and forms shown in the following table. This information is also available from the Caltrans internet website.

Completion records or accompanying correspondence shall not include disclaimer statements of any kind. Such statements shall constitute non-compliance with these provisions.

For Locally Advertised projects, the As-Built Plan Package shall include the "Structures As-Built Plan Submittal Route Slip."

CALTRANS ENCROACHMENT PERMITS MANUAL
Special Provisions to be inserted in APPENDIX K

Completion Records Table

Completion Record	Submittal Instructions and Forms	Submit Completion Record to:
Field Office set of red-marked As-Built plans for Structures, including Log of Test Borings from the Construction Contract Administrator	Furnish the construction field office set of red-marked As-Built prints, <p style="text-align: center;"><u>AND</u></p> Initial, date, and attach the “Structures As-Built Plan Submittal Route Slip” to the As-Built plans submittal package.	<u>Express Mail or hand carry to:</u> State of California Department of Transportation Engineering Service Center Division of Structure Construction 1801 30 th Street, MS 9-2/11H Sacramento, CA 95816
Final As-Built plans for Structures, including Log of Test Borings from the Design Consultant	Furnish one (1) complete set of acceptable full size reproducible As-Built plans, <p style="text-align: center;"><u>AND</u></p> Furnish the construction field office set of red-marked As-Built prints, <p style="text-align: center;"><u>AND</u></p> Initial, date, and attach the Structures As-Built Plan Submittal Route Slip to the As-Built plans submittal package.	<u>Regular Mailing Address:</u> State of California Department of Transportation Engineering Service Center Office of Special Funded Projects MS 9-2/7G P.O. Box 168041 Sacramento, CA 95816-8041 <u>Next Day Mail or hand carry to:</u> State of California, Department of Transportation Engineering Service Center Office of Special Funded Projects 1801 30 th Street, MS 9-2/7G Sacramento, CA 95816
Working Drawings (Shop Plans)	See contract special provisions and Standard Specifications for each individual structure.	ESC Structures Document Unit Division of Structure Design
Report of Completion for Structures	Submit, for each individual structure, Form DS-OS C3, “Report of Completion-Bridges”, or equivalent.	Division of Structure Construction Oversight field Engineer for the project construction contract
Joint Movement Calculations for Structures	Submit, for each individual structure, Form DSD-D-0129, “Joint Movement Calculations” or equivalent.	Division of Structure Construction Oversight field Engineer for the project construction contract
Driven Pile Records	Submit, for each individual structure, Forms DC-C78, “Pile Quantity & Driving Record (Driven Piles)”; DH-OS C79, “Log Pile Sheet”; and DH-OS C80, “Pile Layout Sheet”; or equivalent.	Division of Structure Construction Oversight field Engineer for the project construction contract
Paint Records for Structures	Submit, for each individual structure, Forms DH-OS M5, “Clean and Paint Cost Summary”; DH-OS M8, “Daily Clean & Paint Record”; DH-OS M11, “Paint Record”, and DH-OS M78, “Spot – Sandblasting Report”; or equivalent.	Division of Structure Construction Oversight field Engineer for the project construction contract

4) PROJECT COMPLETION (PROCESS BILLING/COMPLETION NOTICE)

For permits involving structure work, the Progress Billing/Completion Notice shall not be submitted by the District Oversight Resident Engineer/District Permit Engineer as the “Completion Notice” until the structure As-Built and other applicable structure completion records have been submitted by the permittee and approved by Caltrans. The receipt of these records shall be noted on the Progress Billing/Completion Notice.

Private Entities

Failure of private entities to provide accurate, reproducible As-Built plans and satisfactory completion records for permit work shall be cause for bond or deposit retention by the Department.

Local Agencies

Failure of local agencies to provide accurate, reproducible As-Built plans, and satisfactory completion records for permit work shall be cause for the Department to require performance bonds on future permits. Future permitted work is subjected to a bond requirement until the completion records of said previously permitted work are submitted satisfactorily (Streets & Highways Code, Section 678).

STRUCTURE AS-BUILT PLANS SUBMITTAL ROUTE SLIP

FOR LOCALLY-ADVERTISED CONSULTANT-DESIGNED STRUCTURE PROJECT(S)

CONTRACT EA: _____

PERMIT NO. (to local entity): _____

DIST/CO/RTE/PM(KP): _____

COMPLETION & ACCEPTANCE OF PROJECT CONSTRUCTION CONTRACT FIELD WORK (DATE): _____

BRIDGE NO(S): _____

CONSTRUCTION CONTRACT ADMINISTRATOR (Name, Phone, & Firm): _____

CALTRANS OVERSIGHT STRUCTURE REPRESENTATIVE (Name & Phone): _____

CALTRANS DISTRICT OVERSIGHT RESIDENT ENGINEER (Name & Phone): _____

DISTRICT ENCROACHMENT PERMITS ENGINEER (Name & Phone): _____

CALTRANS STRUCTURES OSFP OVERSIGHT LIAISON ENGINEER (Name & Phone): _____

KEEP THIS MEMO WITH THE STRUCTURE AS-BUILT PLAN PACKAGE (HAND CARRY OR EXPRESS MAIL TO THE NEXT PERSON)

Initials/Date

- _____ 1) CONSTRUCTION CONTRACT ADMINISTRATOR / STRUCTURE REPRESENTATIVE
- Compile all structure As-Built changes, including supplemental plan sheets due to CCO's. Consultant Structure Representatives shall review structure As-Built changes with the State Oversight Structure Representative prior to delivery to Division of Structure Construction in Sacramento.
 - Send the field office set of red-marked As-Built prints to CALTRANS ESC, Offices of Structure Construction, MS 9-2/11H, 1801 30th Street, Sacramento, CA 95816.
- _____ 2) DIVISION OF STRUCTURE CONSTRUCTION (DSC), SACRAMENTO
- Receive and review the structure As-Built Plans changes noted on the field office set of red-marked As-Built prints.
 - Verify that **ALL** of the As-Built structure sheets have been received and have the As-Built stamp (including Log of Test Borings plan sheets).
 - Update contract records.
- _____ 3) DIVISION OF EARTHQUAKE ENGINEERING & DESIGN SUPPORT (DEE&DS), Office of Special Funded Projects
- Receive and review As-Built changes.
 - Deliver the package of the field office set of red marked as built prints, and the As-Built route slip to the Design Consultant so that the As-Built changes can be transferred onto the Local Entity's as-advertised tracings.
- _____ 4) DESIGN CONSULTANT
- Transfer **red-marked** As-Built changes to original **as-advertised** tracings (or to the Computer Graphics files if necessary). The original as-advertised tracings thereby become the final As-Built tracings.
 - Deliver field office set of red-marked As-Built prints, the set of final As-Built tracings and this Slip by express mail or hand carry to CALTRANS ESC – OSFP, MS 9-2/7G, 1801 30th Street, Sacramento, CA 95816*
- _____ 5) DIVISION OF EARTHQUAKE ENGINEERING & DESIGN SUPPORT (DEE&DS), Office of Special Funded Projects
- Verify that As-Built red-marked changes and approved CCO's are reflected on the final As-Built tracings.
 - **Inform** District Resident Engineer (or District Encroachment Permit Engineer if total estimate < \$1M) that the final structure As-Built have been received and are satisfactory. The RE or the District Permit Engineer can then initiate and submit the Progress Billing/Completion Notice (TR-0129) regarding structure requirements to the District Permit Section**
 - **Inform** Design Consultant that final structure As-Built have been received and are satisfactory.
 - Structures OSFP retains the field office set of red-marked As-Built prints until the final As-Built tracings are returned from HQ Micrographics. Final structure As-Built tracings are forwarded to DSM&I.
- _____ 6) DIVISION OF STRUCTURES MAINTENANCE AND INVESTIGATIONS (DSM&I)
- Notify DSM&I-Encroachment Permits Section that As-Built plans have been received and are satisfactory.
 - Scan final As-Built tracings into bridge information records system, BIRIS.
 - Forward final As-Built tracings to HQ Micrographics.
- _____ 7) HQ MICROGRAPHICS
- Use final structure As-Built tracings to order 3 full sets of microfilm (roadway & structures) aperture cards.
 - HQ Micrographics files a set of microfilms, delivers a set to both the District, and the Department's security file.
 - Return the final structure As-Built tracings to Structures OSFP [for storage/disposal or return to Design Consultant of Local Entity (if requested)]. Structures OSFP can then dispose of the field office set of red-marked As-Built prints or return them to the Design Consultant or Local Entity (if requested).

* When required by contract with Local Agency, send a **copy** of red-marked prints and reproducible **copies** of final As-Built plans to the Local Agency. Design Consultant keeps a set of reproducible **copies** of the final As-Built plans for own file.

**Project closure is also contingent upon the submittal of other final structure project records and District Roadway As-Built Plan Package to the District.

SURVEYS (SV) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

1. Two days before work is started under this permit, contact _____ concerning the permittee's operation.
2. All survey operations shall be conducted off the traveled way except where necessary to cross pavements and medians.
3. When survey operations are being conducted, the permittee shall furnish, place and maintain signs and safety equipment in accordance with the latest edition of the "Manual of Traffic Controls for Construction and Maintenance Work Zones".
4. All personnel shall wear hard hats and orange vests, shirts or jackets as appropriate. Any painted markings shall be made with water soluble paint.
5. Permission is also granted to park survey vehicles temporarily within the right of way, outside the shoulders, while survey work is in progress.
6. SURVEY WORK IS PROHIBITED ON FREEWAYS.
7. Survey information and assistance may be obtained upon request to: Survey Section, Department of Transportation, _____.

TEMPORARY STRUCTURAL SUPPORTS - TIEBACKS (MCT) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

1. Permanent tiebacks are prohibited. Tiebacks shall not be used to support the completed structure.
2. The tieback wall shall be monitored during construction to determine any lateral movement.
3. Soldier beams may remain in place providing they are cut off 3' (0.9 m) below ground surface and the holes backfilled as directed.

TRAFFIC COUNTERS (SV) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are applicable:

1. Personnel installing or removing traffic counters shall wear an orange colored outer garment and a hard hat.
2. Traffic counters installed on freeway ramps shall be located at the curb return as near as possible to the local street intersection.
3. Counter tubes shall be securely attached to the pavement by taping. No nails, spikes or other material shall be driven into the pavement except to secure the tube at the outside edge of shoulder, at the lip of a gutter, or in the center line stripe.
4. A copy of the collected data shall be sent to the Caltrans District Permit Engineer.

TRAFFIC SIGNAL CONTROLLER ASSEMBLY SPECIAL PROVISIONS

In addition to the attached General Provision (Form TR-0045), the special provision shown below is also applicable.

Use the special provision that pertains to either a chargeable or State furnished controller assembly. When the permittee is charged a fee for the controller, the special provision will identify the fee amount and instructions for requesting controller assembly delivery. When Caltrans is providing the controller under a Cooperative Agreement, the provision contains only the delivery instructions.

Use this Statement in Permits for Privately Funded Projects and Locally Funded Projects Without Cooperative Agreements

The permittee or the contractor for a local agency shall pay \$5,600 to Caltrans to compensate the State of California for the costs incurred in obtaining, testing, and supplying a Traffic Signal Controller Assembly. This fee does not supercede any other fee charged by Caltrans for review, inspection or field work performed by Department staff as a result of the permitted work. If the fee has not been paid before permit issuance, full payment shall be made to the district cashier before starting any traffic signal work authorized by this permit, and at least 30 (thirty) days before the controller is needed for installation. The permittee shall give the State representative not less than 10 (ten) working days written advance notice before picking up the cabinet assembly (without the controller). When notified by the permittee, Caltrans will provide the permittee with a time and location for picking up that cabinet assembly. Caltrans will subsequently deliver the actual controller to the job site at the prearranged time of signal turn on.

Use this Statement in Permits When a Traffic Controller Assembly is Provided for Projects Involving Cooperative Agreements

The permittee shall give the State representative at least 10 (ten) working days written advance notice before picking up the cabinet assembly (without the controller). When notified by the permittee, Caltrans will provide the permittee with a time and location for picking up the cabinet assembly. Caltrans will deliver the controller to the job site at the prearranged time of signal activation.

TRAFFIC STRIPING, MARKINGS, AND SIGNS (MCS) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable:

1. Traffic striping, pavement markings and signs shall be furnished and placed by the permittee and the cost shall be borne by the permittee. Where new asphalt concrete has been placed, painted striping and pavement markings shall be installed within 24-hours. Where shown on the plans, after thirty (30) days curing time, thermoplastic materials shall be applied in compliance with Section 84 of the Standard Specifications.
2. Roadside signs shall be placed at locations shown on the permit plans and shall be installed in compliance with the latest edition of Caltrans Standard Plans.
3. Permittee shall furnish to State's representative a completed Form CEM-3101 "Notice of Materials to be Used," and approval of the material used shall be obtained prior to its installation.

TREE TRIMMING, REMOVAL, AND CHEMICAL APPLICATION (LT) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are applicable:

I. GENERAL

1. Traffic control is authorized only from 9 a.m. to 3 p.m., Monday through Friday, excluding holidays. Any traffic control that requires lane closure shall be in compliance with the appropriate traffic control plan. Where required by the plan, the use of a flashing arrowboard is MANDATORY.
2. All debris shall be removed from the right of way and the area left in a safe and presentable condition at the end of each work day.
3. Climbing Spurs shall not be used except when removing trees or when working in the tops of Eucalyptus, Palms and Conifers.
4. Head back trim consists of reducing the height and/or spread of a tree by not more than one third. Head back trim is performed by a method called "drop crotch" pruning, which permits the preservation of a natural appearing foliage margin. Drop crotch pruning consists of removing perimeter branches at their junction with shorter branches. The shorter branches are retained intact to form a new foliage margin at the specified height and/or spread.

II. TREE TRIMMING

Tree trimming shall be performed by or under the detailed supervision of a qualified tree trimmer and the work must conform to the following:

1. In general, only light trimming of annual growth 2" (51 mm) or less in diameter will be permitted. The basic structure of the tree must be preserved. All large cuts shall be painted.
2. All trees shall be left in a symmetrical shape that is characteristic to their species.
3. This Permit alone does not grant permission to trim trees which are wholly or partly on private property. Permission must also be secured from the local property owner before trimming these trees.
4. Permittee shall trim excessive growth on the sides or top of the tree in all instances where it is obvious that previous pruning practices (topping and/or side trimming) are the cause of the excessive growth over State or adjacent private property. The finished tree shall be balanced and symmetrical.

5. Crown reduction shall be accomplished by use of selective trimming, not directive. Cuts, whenever possible, shall be made at strong laterals. Stubbing and/or shear pruning will not be permitted.
6. Limbs larger than 2" (51 mm) in diameter may be removed for restructuring of the crown framework or to remove undesirable growth. Entire limbs may be cut off at the trunk. Care must be taken to avoid large holes in the canopy or to avoid creating unbalanced trees.
7. Trimming which would have the effect of forcing an unbalanced side growth or hazardous overhang on the highway will not be permitted. Under these conditions, proper thinning and heading in will be required before top or center trimming is permitted. The terminal bud of the leader shall not be removed.
8. Restructuring growth shall be cut for removal of crows nests or brooms. Locate these cuts at strong laterals on older wood. Thinning by selective trimming or drop crotching for a more open canopy is desirable. The terminal bud shall not be removed.
9. Pruning should be done only to maintain minimum required clearances for a two year (2) maximum period.
10. All Elm trees shall be pruned and debris removed according to Department of Forestry Regulations.
11. All Pines shall be pruned and debris removed according to recommendations of Department of Forestry to prevent spread of pitch canker.
12. Final pruning cuts shall be made without leaving a stub. They shall be made in a manner to favor the earliest possible covering of the wound by callus growth. This requires that the wound be as small as practicable; the cut be reasonably flush and within the shoulder ring area; and that the cambial tissues at the edge of the cut be alive and healthy. Extremely flush cuts that produce large wounds and weaken the tree at the cut shall not be made.

III. TREE REMOVAL

1. When permit is issued for removal of a tree as an independent operation or as a part of other work, the entire stump shall be taken out for a depth of at least 2' (0.6 m) below the ground surface. All debris shall be removed from the right of way. The hole left by the stump shall be backfilled and thoroughly tamped and the site left in a safe presentable condition.

IV. CHEMICAL CONTROL

1. Chemical applications to trees located on scenic highways shall not be authorized.
2. Chemical applications shall be made only after approval of County Agricultural Commissioner.

ENCROACHMENT PERMIT - UNCASSED HIGH PRESSURE NATURAL GAS PIPELINE

SPECIAL PROVISIONS

TR-0158 (NEW 04/2002)

In accordance with the Departments Encroachment Permits Manual, Section 623, requires that all new pipeline installations with a diameter of six inches or greater and transversely cross a State highway rights-of-way shall be encased.

In compliance with Memorandum dated November 9, 1994, "Exception to Policy" - Uncased High-pressure Natural Gas Pipelines. The Department will allow the installation of uncased natural gas pipelines crossings in specific circumstances. The Departments primary concerns are for public safety, the integrity of the highway facility and the mechanical protection of the pipeline itself. It is necessary to limit the number of requests for transverse natural gas transmission pipeline crossings, without casings, to locations where the following conditions are met:

UNG 1.

The pipeline owner agrees that the crossing will be designed for construction in accordance with the Code of Federal Regulations, Title 49, Part 192, and/or the California Public Utilities Commission General Orders No. 112-D with respect to natural gas pipelines. The crossing design shall be comprehensive in all respects including but not limited to " material specification, pipe wall thickness determination, coating selection, and cathodic protection. Soil conditions at each site shall be analyzed for characteristics that may prove harmful to the protective pipe coating. This analysis shall be used by the pipeline owner in selecting a protective pipe coating sufficient to withstand the potential for gouging or peeling during the boring and jacking operation, or other methods approved by Caltrans. The final condition of the coating will be determined by the pipeline owner through monitoring of the boring and jacking operation, visually inspecting the exiting initial pipe segment, and electrical testing by an engineer or technician with expertise in cathodic protection. The test data shall be noted on the as-built drawings. Remedial action will be taken if the condition of the coating is such that cathodic protection is not practical.

UNG 2.

The minimum depth of cover within State highway right of way, from the final ground line (finished grade or original ground) to the top of the proposed gas carrier pipeline, is two and one-quarter meters (7' - 6"). If the location is such that it is not practical to achieve the above depth of cover, then an engineered protective cover (such as a reinforced concrete structure) may be provided outside of pavement areas in lieu of casing. At no time shall the minimum depth of cover be less than one and one-tenth meters (42").

UNG 3.

The permit specifies that the uncased gas carrier pipeline shall, as a minimum, be designed for a Class 3 Location (Code of Federal Regulations referenced above) for hard surfaced roads, highways, public streets, and railroads. (See attached Excerpts from the Code of Federal Regulations, Design Factor to be Used for Natural Gas Pipelines.)

UNG 4.

The existence of the crossing is adequately identified by signing at the right-of-way line, with at least one identifying sign, which is visible from the roadway in each direction of travel.

UNG 5.

The pipeline owner agrees to provide as-built drawings at completion of the pipeline crossing, with a letter certifying that the pipeline was installed properly and in accordance with the permit plans (including approved changes to the permit plans), and meets industry and regulatory standards for such installation.

UNG 6.

All other applicable requirements of Section 623 of the Encroachment Permits Manual are satisfied.

UNG 7.

All permit applications requesting installations of such uncased natural gas pipeline crossings six inches or larger in diameter and meeting the above requirements may be approved by the highway district. All permit applications for uncased pipeline crossings deviating from the above requirements shall be submitted to the Chief of the Office of Project Planning and Design for exception approval in the usual manner.

EXCERPTS FROM CODE OF FEDERAL REGULATIONS

DESIGN FACTORS TO BE UTILIZED FOR NATURAL GAS PIPELINES

In the design of steel natural gas pipelines the Minimum Yield Strength for the grade of steel used is reduced by a Design Factor (F). This Design Factor is determined by the type of road being crossed by the pipeline and a Class Location established by Code of Federal Regulations, Title 49, Part 192 (Office of the Federal Register, 1990)

The Class Location depends on the occupancy of buildings or activities within an area that extends 660 feet (200 m) either side of the pipeline centerline for a continuous 1 mile (1.6 km) segment of the pipeline. There are four Class Locations as follows:

Class 1. A location that has 10 or less buildings intended for human occupancy.

Class 2. A location that has more than 10 but less than 46 buildings intended for human occupancy.

Class 3. a) Any location that has 46 or more buildings intended for human occupancy; or

b) Area where pipeline lies less than 300 feet (91 m) of either a building or a small well defined outside area (such as a playground, recreation area, outdoor theater, or other place of public assembly) that is occupied by 20 or more persons on at least 5 days a week for 10 weeks in any 12-month period. (The days or weeks need not to be consecutive).

Class 4. Location where buildings of four or more stories are prevalent.

The design factor used for a specific Class Location also depends on the kind of road involved as indicated on the following Table.

DESIGN FACTOR (F)

TYPE OF THOROUGHFARE	CLASS LOCATION			
	1	2	3	4
Privately owned roads	0.72	0.60	0.50	0.40
Unimproved public roads	0.60	0.60	0.50	0.40
Hard surfaced roads, highways public streets, and railroads	0.60	0.50	0.50	0.40

Example: A pipe made of X42 grade of steel which has a Minimum Yield Strength (MYS) of 42,000 psi used in a Class 4 location at a hard surface road crossing would be designed using a reduced Minimum Yield Strength, by applying a Design Factor of 0.4, of 16,800 psi.

ENCROACHMENT PERMIT ANNUAL UTILITY PROVISIONS

TR - 0160 (Rev. 12/2001)

Any public utility or public corporation who lawfully maintains a utility encroachment, or their agent, may perform routine or emergency maintenance on such facility in accordance with the following provisions:

UE1. EXCLUSIONS: These provisions do not authorize tree trimming, work on freeways, expressways, aerial capacity increases on designated "Scenic Highways," or other activities not specifically provided for in this permit.

UE2. POSSESSION OF PERMIT REQUIRED: The permit or a copy thereof shall be kept at the work site and must be shown to any Departmental representative or any law enforcement officer on demand. WORK SHALL BE SUSPENDED IF PERMIT IS NOT AT JOB SITE AS REQUIRED.

UE3. NOTICE REQUIRED: The permittee shall notify the Department's representative and the Transportation Management Center (TMC) 7 days before initiating a lane closure. A conformation notification should occur 3 days before closure. In emergency situations that may impact traffic, TMC and the Department's representative shall be notified as soon as possible.

UE4. STANDARDS OF WORK: All work shall conform to recognized standards of utility construction and Department's current Standard Specifications.

UE5. EMERGENCY REPAIRS: The permittee may make emergency repairs, alter traffic flow, and excavate through improved surfaces only when breaks in the conduit, cable, or pipeline over or under the pavement presents a definite public hazard or serious interruption of essential services. In such cases, the Department's representative shall be notified immediately.

UE6. OPEN EXCAVATIONS: No excavation shall be left open after daylight hours unless specifically authorized and adequate protection for traffic is provided in accordance with General Provisions, "Public Traffic Control." Backfill and pavement replacement shall be performed in accordance with General Provisions, "Restoration and Repairs in Rights of Way."

UE7. TRAFFIC CONTROL HOURS: Work requiring traffic control shall be conducted between 9:00 a.m. and 3:00 p.m. or as otherwise authorized by the Department's representative.

UE8. WORK PERMITTED --AERIAL:

1. Install additional capacity (in the same location), except facilities over the traveled way, on designated "Scenic Highways," or on Structures.
2. Maintain, inspect, remove, repair or replace (in the same location) all aerial facilities except over the traveled way or on Structures. Permittee is authorized to clear grasses from around base of poles and excavate around poles for inspection, including tamping and straightening. This permit does not authorize the

use of herbicides or other chemicals. A separate encroachment permit must be applied for and issued for those purposes.

3. Perform insulator washing and interconnect splicing of cables.
4. Install or remove service connections with potential to ground of 300 volts or less, except over the traveled way.
5. Install, maintain, remove, repair or replace aerial service connections with potential to ground of 300 volts or less, except over the traveled way, unless specifically stated in permit.
6. Installations and clearances shall be equal to those required by either the State of California Public Utilities Commission orders or the California Occupational Safety and Health Regulations (CAL-OSHA), Division of Industrial Safety, Safety Orders, promulgated in the California Code of Regulations, Title 8, Chapter 4, whichever is greater.

UE9. WORK PERMITTED --UNDERGROUND:

1. Maintain, inspect, remove, repair or replace (in the same location) all underground facilities except those requiring trenching in the traveled way.
2. Install additional capacity in existing ducts except for facilities not in compliance with the Department's current "Manual on High and Low Risk Facilities within Highway Rights of Way" or on Structures.
3. Install air flow monitoring transducers and piping in existing ducts.
4. Barholing, potholing, cleaning, rodding and placing float ropes.
5. Adjust access cover to grade and replace in kind or with larger size pull boxes.
6. Interconnect splicing of cables.
7. Install service connections perpendicular to the highway using either directional drilling, jacking and boring, or trenching methods as determined by the District Permit Engineer. Electrical service is restricted to a potential to ground of 300 volts or less. Gas and domestic water services are restricted to 2" (51 mm) in diameter or less.
8. Permanent pavement patching for work authorized by this permit.

UE10 FAILURE TO COMPLY: Failure to comply with the terms and conditions above shall be grounds for permit revocation.

UTILITY LEASING SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provision is also applicable:

1. Leasing all or part of the longitudinal utility encroachment is prohibited. Encroachment includes but is not limited to: utilities, carrier pipes, casings, conduits, poles, etc.

ENCROACHMENT PERMIT UTILITY MAINTENANCE PROVISIONS

TR - 0161 (Rev. 12/2001)

Any public utility or public corporation who lawfully maintains a utility encroachment, or their agent, may perform routine or emergency maintenance on such facility in accordance with the following provisions (unless updated at some future time, thence the future provisions shall govern.

UM1. EXCLUSIONS:

These provisions do not authorize tree trimming, work on freeways, expressways, or other activities not specifically provided for in this permit.

UM2. POSSESSION OF PERMIT REQUIRED:

The permit or a copy thereof shall be kept at the site of the work and must be shown to any Departmental representative or any law enforcement officer on demand. WORK SHALL BE SUSPENDED IF PERMIT IS NOT AT WORK SITE AS REQUIRED.

UM3. NOTICE REQUIRED:

The permittee shall notify the Department's representative and the Transportation Management Center (TMC) 7 days before initiating a lane closure. A confirmation notification should occur 3 days before closure. In emergency, situations that may impact traffic, TMC and the Department's representative shall be notified as soon as possible.

UM4. STANDARD OF WORK:

All work shall conform to recognized standards of utility construction and the Department's current Standard Specifications.

UM5. EMERGENCY REPAIRS:

The permittee may make emergency repairs, alter traffic flow, and excavate through improved surfaces only when breaks in the conduit, cable or pipeline over or under the pavement present a definite public hazard or serious interruption of essential service. In such cases, the Department's representative shall be notified immediately.

UM6. OPEN EXCAVATIONS:

No excavation shall be left open after daylight hours unless specifically authorized and adequate protection for traffic is provided in accordance with the General Provisions "Protection of Traffic."

Backfill and pavement replacement shall be performed in accordance with the applicable General Provisions (i.e., "Restoration and Repairs in Rights of Way").

UM7. SERVICE CONNECTION:

These provisions do not authorize installation of conduit, cable, gas, or water service connections within State rights of way, regardless of the location of the main, existing conduit, or cable. All new underground or pipe abandon services must be covered by individual permits. See Section "OH 4" regarding service connections for aerial wires.

UM8. ROUTINE INSPECTION AND MAINTENANCE:

1. Routine Maintenance and Inspection:

Roadbed work shall be conducted between 9:00 a.m. and 3:00 p.m., or as otherwise authorized, in writing, by the Department's representative.

2. Manholes:

The permittee may open existing manholes to repair underground cables. Where the manhole lies within the improved surface of the highway, the permittee will provide adequate protection for traffic in accordance with the General Provisions "Public Traffic Control".

3. Excavations:

Routine inspection and repair of pipeline and cables shall:

A. Not be made in improved surfaces, landscaped areas or closer than 10' (3.04 m) to the edge of the pavement without a special permit; and

B. Not uncover more than 50' (15.24 m) of line at any one time.

4. Pole Lines:

Permittee is authorized to:

A. Stub, or reset existing pole, provided no change in location of pole or anchor is made. Stubs and anchors must not be placed between existing pole and traveled way.

- B. Replace poles, guy poles, and crossarms in same location limited to two (2) consecutive poles. No additional poles or
- C. Replace broken pins and/or insulators, repair broken wires, pull slack wires, and replace or pull broken or slack guys.
- D. Repair and complete transfer work on existing aerial cables.
- E. Install new and replace existing transformers on existing poles.
- F.** Replace aerial wires and crossarms on existing poles except where wires cross the highway. Unless otherwise specifically required by the Department, protected cable, tree wire or plastic tree wire guard used for communication lines may be used through trees where necessary, provided the appearance of the tree or the tree itself will not be damaged.

guy poles are authorized under this routine maintenance provision.

This section (F) does not apply to scenic highways.

- G. Installations and clearances shall be equal to those required by either the California Public Utilities Commission Orders or the California Occupational Safety and Health (CAL-OSHA) Safety Orders, whichever is greater. ***Also see "OH 2" of the Overhead Utility Provisions.***
- H. Clear grass from around base of poles and excavate around poles for inspection, including tamping and straightening. The use of herbicides or other chemicals is not authorized by this permit. A separate encroachment permit must be applied for and issued for that purpose.

ENCROACHMENT PERMIT OVERHEAD UTILITY PROVISIONS

TR - 0162 (Rev. 12/2001)

OH1. LOCATION POLE LINES, ETC.:

Pole lines shall be located as specifically directed in the provisions of the permit.

OH2. INSTALLATIONS AND CLEARANCES:

Horizontal clearances, as measured from the edge of traveled way to the installation, shall be in accordance with the minimum desirable clear recovery zone for a conventional highway which is 20' (6.09 m). In no case is a pole allowed closer than 1.5' (0.45 m) behind a curb face or less than 2' (0.60 m) from the edge of a slope catch point or a driveway, or within a drainage ditch. New installations should adhere to setback limits or should be protected. Consideration should be given to placing such encroachments underground in shoulder or parking areas. Also, installations and clearances shall comply with applicable orders of the Public Utilities Commission of the State of California, or the California Occupational Safety and Health (CAL-OSHA) Safety Orders, whichever is greater.

OH3. PERMISSION FROM PROPERTY OWNERS:

Whenever necessary to secure permission from abutting property owners, such authority must be secured by the permittee before starting work.

OH4. CLEARANCE OF TREES:

Unless otherwise specifically required by the Department, protected cables, tree wires or plastic tree wire guards used for communication lines may be used through trees where necessary, provided the installation and any necessary pruning does not damage or affect the appearance of the tree or the tree itself will not be damaged. This allowance does not apply to scenic highways.

OH5. GUY WIRES:

No guy wires are to be attached to trees except as may be specified in the permit and in no event

shall they be so attached as to girdle the tree or interfere with its growth. Guy wires shall be kept to a minimum elevation above ground as directed.

OH6. ANCHOR:

No anchor shall be placed closer to the traveled way than the pole itself.

OH7. REMOVE OLD POLES, GUY, and STUBS:

The entire length of poles and stubs shall be removed from the ground and the holes backfilled. Guy rods shall be removed to a minimum depth of 3' (0.91 m) below original ground.

OH8. AERIAL CROSSING:

No work involving new or additions to existing aerial crossings shall be performed in rainy, foggy or inclement weather which creates hazardous conditions for highway users.

OH9. CLEARANCE FROM CURBS:

The face of poles shall not be placed closer than 1.5' (0.45 m) from any curb face.

OH10. POLE INSTALLATION OR REMOVAL:

Where poles are to be installed or removed behind the curb in a parkway that is paved with Portland Cement Concrete, the concrete shall be saw cut, removed and replaced to the nearest score lines or expansion joints. The hole in the PCC sidewalk created by pole removal shall be temporarily backfilled with 2" (51 mm) minimum temporary AC at the time the pole is removed. Poles are not to be installed without prior approval of the final location by the Department's field representative.

OH11. FREEWAY INSTALLATION:

Poles, anchors, etc., shall not be installed inside of any fenced freeway right of way.

STATE OF CALIFORNIA - DEPARTMENT OF TRANSPORTATION
ENCROACHMENT PERMIT UNDERGROUND UTILITY PROVISIONS

TR - 0163 (Rev. 12/2004)

Highway and Freeway encasement requirements for Transverse crossings of Utility installations, installed by the following methods. The pavement or roadway shall not be open-cut unless specifically allowed under a "UT" permit. Utility installations shall not be installed inside of culverts or drainage structures.

The installation of Uncased High Pressure Natural Gas pipelines, on a case by case basis may be allowed, when in compliance with TR-0158 Special Provisions, "Exception to Policy" for Uncased High Pressure Natural Gas Pipelines.

Encasement Requirements for Transverse Crossings						
Facility Type	Bore and Jack		Directional Drilling		Trenching	
	Frwy/Expwy	Conventional	Frwy/Expwy	Conventional	Frwy/Expwy	Conventional
High Risk (Section 605)	Encase	Encase	Encase	Encase	Encase	Encase
Low Risk (Section 605)	Encase	Encase	Encase	Encase	Encase	Optional
Exempt Facilities (Section 605)	Encase	Encase	Optional	Optional	Optional	Optional
Pressurized Fluids	Encase	Encase	Encase	Encase	Encase	Encase
Natural Gas Lines Minimum 7.5' Depth (Appendix H)	Optional	Optional	Encase	Encase	Optional	Optional
Gravity Flows	Encase	Encase	Encase	Encase	Optional	Optional

Note: "Optional" means at the option of the District Permit Engineer.

UG 1. CASINGS:

Casings' should be steel conduit with a minimum inside diameter sufficiently larger than the outside diameter of the pipe or ducts to accommodate placement and removal. The casing can be either new or used steel pipe, or an approved connector system. Used pipe shall be pre-approved by the Department's engineer or representative before installation.

When the method of Horizontal Directional Drilling is used to place casing, the use of High Density Polyethylene Pipe (HDPE) as casing is acceptable. In specific instances the approval of Headquarters Office of Encroachment Permits, may be required.

Reinforced Concrete Pipe (RCP) in compliance of State Standard Specifications is an acceptable carrier for storm drain gravity flow or non-pressure flow. RCP when installed by Bore & Jack shall have rubber gaskets at the joints, and holes for grouting of voids left by jacking operations, see "E" below.

- A. All pipes 6" (152 mm) or larger in diameter, or placement of multiple pipes or ducts, regardless of diameters, shall require encasement.
- B. Minimum wall thickness for steel pipe casing for different lengths and diameters of pipes are as follows:

Minimum Wall Thickness		
Casing Pipe (Diameter)	Up to 46 m (Length)	Over 46 m (Length)
6" to 28" (152 mm to 711 mm)	1/4" (6 mm)	1/4" (6 mm)
30" to 38" (762 mm to 965 mm)	3/8" (10 mm)	1/2" (13 mm)
40" to 60" (102 mm to 1524 mm)	1/2" (13 mm)	3/4" (20 mm)
62" to 72" (1575 mm to 1829 mm)	3/4" (20 mm)	3/4" (20 mm)

- C. Spiral welded casing is authorized provided the casing is new and the weld is smooth.

- D. The ends of the casing shall be plugged with ungrouted bricks or other suitable material approved by the Department's representative.
- E. When required by the Department's representative, the permittee shall at his expense, pressure grout the area between the pavement and the casing from within the casing in order to fill any voids caused by the work covered under this permit. The increments for grout holes inside the pipe shall be 8' (2.43 m) staggered and located 22-1/2 degrees from vertical axis of the casing. Pressure shall not exceed 5 psig (34.47 kPa) for a duration sufficient to fill all voids.
- F. The installation of multiple casings shall be installed with a minimum of 1-1/2 diameter clearance between casings, but not less than 18" (457 mm). The clearance between casings crossing freeways shall be two (2) diameters minimum, but not less than 24" (610 mm).
- G. The casings placed within freeway right-of-way shall extend to the access control lines.
- H. Wing cutters, if used, shall be a maximum of 1" (25 mm) larger than the casing. Voids caused by the use of wing cutters shall be grouted in accordance with "E" above.
- I. A band welded to the leading edge of the casing should be placed square to the alignment. The band should not be placed on the bottom edge. Flaring the lead section on bores over 100' (30.48 m) shall not be permitted.
- J. All casing lengths shall equal to the auger length.
- K. The casings within conventional highways shall extend 5' (1.52 m) beyond the back of curb or edge of pavement, or to the right of way line if less. Where PCC cross-gutter exists, the casing shall extend at least 5' (1.52 m) beyond the back of the cross-gutter, or to the right of way line if less.

Bore and receiving pits shall be:

- A. Located at least 10' (3.04 m) or more from the edge of pavement on conventional highways in rural areas.

- B. Located 5' (1.52 m) behind the concrete curb or AC dike on conventional highways in urban areas.
- C. Located 5' (1.52 m) outside the toe of slope of embankment areas.
- D. Located outside freeway right of way.
- E. Adequately fenced and/or have a Type-K barrier placed around them.
- F. Adequately shored in accordance with Cal-OSHA requirements. Shoring for jacking and receiving pits located within 15' (4.57 m) of traffic lanes on a State highway shall not extend more than 36" (914 mm) above the pavement grade unless otherwise authorized by Department's representative. Reflectors shall be affixed to the shoring on the sides facing traffic. A 6' (1.82 m) chain link fence shall be installed around the perimeter of the pits during non-working hours.
- G. All pits should have crushed-rock and sump areas to clear groundwater and water used to clean the casing. Where ground water is found and pumping is required, the pits shall be lined with filter fabric.

UG 2. DIRECTIONAL DRILLING: Bore and Receiving Pits

When directional drilling is the approved method for pipe installation, drilling plans shall contain information listed as follows:

1. Location of: entry and exit point, access pit, equipment, and pipe staging area.
 2. Proposed drill path alignment (horizontal and vertical).
 3. Location and clearances of all other facilities.
 4. Depth of cover.
 5. Soil analysis.*
 6. Carrier pipe length, diameter, thickness, and material (HDPE/steel) and ream pipe diameter.
 7. Detailed carrier pipe calculations confirming ability to withstand installation loads and long term operational loads including H2O.
 8. Proposed drilling fluid composition, viscosity, and density (based on soils analysis).
 9. Drilling fluid pumping capacity, pressures, and flow rates
 10. State right-of-way lines, property, and utility right of way or easement lines.
 11. Elevations.
 12. Type of tracking method/system and accuracy used.
 13. A detailed plan for monitoring ground surface movement (settlement or heave) resulting from the drilling operation.
- * May be waived by the District Permit Engineer for HDD jobs less than 6" (150 mm) in diameter and a traverse crossing less than 150' (50 m).

UG 3. LIMIT OF EXCAVATION:

No excavation is allowed within 10' (3.04 m) from the edge of pavement except in curbed urban areas or as specified in the permit. Where no curb exists and excavations within 10' (3.04 m) of the traveled way are to remain open, a temporary Type-K railing shall be placed at a 20:1 taper or as otherwise directed by the Department.

UG 4. TUNNELING:

Review, requirements of Section 623.6 of the Encroachment Permits Manual, if applicable. In addition to the requirements of "UG1" the following requirements apply:

- A. For the purpose of this provision, a tunnel is defined as any pipe, 30" (762 mm) or larger in diameter placed.
- B. When tunneling is authorized, the permittee shall provide full-time inspection of tunneling operations. The Department's representative shall monitor projects.
- C. A survey grid shall be set and appropriately checked over the centerline of the pipe jacking or tunneling operation. Copies of the survey notes shall be submitted to the Department's representative.
- D. Sand shields may be required as ground conditions change.
- E. The method used to check the grade and alignment shall be approved by the Department's representative.
- F. Pressure grouting for liner plates, rib and spiling, or rib and lagging tunnels shall be at every 8' (2.43 m) section or at the end of work shift before the next section is excavated. All grouting shall be completed at the end of each workday.
- G. A method for securing the headway at the end of each workday is required. Breastplates shall be installed during working hours for running sand or super-saturated soil.

UG 5. HIGH AND LOW RISK FACILITIES:

High and Low Risk Facilities, as defined in the Department's current Manual on High and Low Risk Underground Facilities, shall be installed with a minimum cover of 42" (1.1 m).

UG 6. EXEMPT AND OTHER UNDERGROUND FACILITIES:

- A. Exempt Facilities:
 1. Gas service lines no larger than 2" (50 mm) in diameter or operating at 415 kPa (60 PSIG) or less.
 2. Underground electrical service conductors with a potential to ground of 300 volts or less.
 3. Departmental owned electrical systems.
- B. All facilities other than high and low risk shall have a minimum cover of 36" (900 mm) except for service connections, which shall have a minimum cover of 30" (750 mm).

UG 7. DETECTOR STRIP:

A continuous metallic detector strip shall be provided with non-metallic main installations. Service connections shall be installed at right angles to the centerline of the State highway where possible.

UG 8. BACKFILLING:

All backfilling shall conform to the applicable sections of the Department's Standard Specifications. Ponding or jetting methods of backfilling is prohibited.

Any required compaction tests shall be performed by a certified laboratory at no cost to the Department and the laboratory report furnished to the Department's representative.

UG 9. ROADWAY SURFACING AND BASE MATERIALS:

When the permit authorizes installation by the open cut method, surfacing and base materials and thickness thereof shall be as specified in the permit.

Temporary repairs to pavements shall be made and maintained upon completion of backfill until permanent repairs are made. Permanent repairs to pavements shall be made within thirty (30) days of completion of backfill unless otherwise specified by the Department. Temporary pavement patches shall be placed and maintained in a smooth riding plane free of humps and/or depressions.

UG 10. DAMAGE TO TREE ROOTS:

No tree roots over 3" (76 mm) will be cut within the tree drip line when trenching or other underground work is necessary adjacent to roadside trees. The roots that are 3" (76 mm) or more in diameter inside the tree drip line shall be tunneled under and wrapped in burlap and kept moist until the trench is refilled. Trenching machines may not be used under trees if the trunk or limbs will be damaged by their use.

If the trees involved are close together and of such size that it is impractical to protect all roots over 3" (76 mm) in diameter, or when roots are less than 4" (102 mm) in diameter, outside tree drip line, special arrangements may be made whereby pruning of the tree tops to balance the root loss can be done by the permittee under the close supervision of the District Landscape Specialist or District Tree Maintenance Supervisor. Manholes shall not be installed within 20' (6.09 m) of any trunk.

UG 11. PIPES ALONG ROADWAY:

Pipes and conduits paralleling the pavement shall be located as shown on the plans or located outside of pavement as close as possible to the right-of-way line.

UG 12. BORROW AND WASTE:

Borrow and waste will be allowed within the work limits only as specified in the permit.

UG 13. MARKERS:

The permittee shall not place any markers that create a safety hazard for the traveling public or departmental employees.

UG 14. CATHODIC PROTECTION:

The permittee shall perform stray current interference tests on underground utilities under cathodic protection. The permittee shall notify the Department prior to the tests. The permittee shall perform any necessary corrective measures and advise the Department.

UG 15. TIE-BACKS:

- A. Tie-backs shall be placed for the sole purpose of supporting shoring and/or soldier piles placed outside State highway rights-of-way to facilitate permittee's excavation.
- B. Tiebacks shall be disconnected from the shoring and/or soldier piles one (1) year prior to releasing the bond.

UG 16. INSTALLATION BY OPEN CUT METHOD:

When the permit authorizes installation by the open cut method no more than one lane of the highway pavement shall be open-cut at any one time. Any exceptions shall be in writing by the Department's representative. After the pipe is placed in the open section, the trench is to be backfilled in accordance with specifications, temporary repairs made to the surfacing and that

portion opened to traffic before the pavement is cut for the next section.

If, at the end of the working day, backfilling operations have not been properly completed, steel plate bridging shall be required to make the entire highway facility available to the traveling public in accordance with the Steel Plate Bridging Special Provisions (TR-0157)

UG 17. PAVEMENT REMOVAL:

PCC pavement to be removed shall be saw cut at a minimum depth of 4" (102 mm) to provide a neat and straight pavement break along both sides of the trench. AC pavement shall be saw cut to the full depth.

Where the edge of the trench is within 2' (0.60 m) of existing curb and gutter or pavement edge, the asphalt concrete pavement between the trench and the curb or pavement edge shall be removed.

UG 18. MAINTAIN ACCESS:

Where facilities exist (sidewalks, bike paths), a minimum width of 4' (1.21 m) shall be maintained at all times for safe pedestrian and bicyclist passage through the work area.

UG 19. SIDES OF OPEN-CUT TRENCHES:

Sides of open cut trenches in paved areas shall be kept as nearly vertical as possible. Trenches shall not be more the 2' (0.60 m) wider than the outside diameter of the pipe to be laid therein, plus the necessary width to accommodate shoring.

UG 20. EXCAVATION UNDER FACILITIES:

Where it is necessary to excavate under existing curb and gutter, or underground facilities, the void shall be backfilled with two (2) sack cement-sand slurry.

UG 21. PERMANENT REPAIRS TO PCC PAVEMENT:

Repairs to PCC pavement shall be made of Portland Cement Concrete containing a minimum of 298.46 kg (658 lbs. or 7 sack) of cement per cubic yard (0.91 cubic meter). Replaced PCC pavement shall equal existing pavement thickness. The concrete shall be satisfactorily cured and protected from disturbance for not less than forty-eight (48) hours. Where necessary to open the area to traffic, no more than two (2%) percent by weight of calcium chloride may be added to the mix and the road opened to traffic after six (6) hours.

UG 22. REMOVAL OF PCC SIDEWALKS OR CURBS:

Concrete sidewalks or curbs shall be saw cut to the nearest score marks and replaced equal in dimension to that removed with score marks matching existing sidewalk or curb.

UG 23. SPOILS:

No earth or construction materials shall be dragged or scraped across the highway pavement, and no excavated earth shall be placed or allowed to remain at a location where it may be tracked on the highway traveled way, or any public or private approach by the permittee's construction equipment, or by traffic entering or leaving the highway traveled way. Any excavated earth or mud so tracked onto the highway pavement or public or private approach shall be immediately removed by the permittee.

VIBRIO GENERATING EQUIPMENT (GV) SPECIAL PROVISIONS

In addition to the attached General Provisions (TR-0045), the following special provisions are also applicable.

1. Equipment shall not be operated on any pavement or other paved surface.
2. Equipment shall not be operated within access-controlled rights of way.
3. Equipment shall be placed and operated as close to the right of way line as possible.
4. Equipment shall be operated so that no damage will occur to trees, plants, wells, culverts, headwalls, structures or other improvements.
5. This permit does not authorize the shear wave method.
6. Equipment shall not be parked on or operated on the traveled way except for normal legal travel.
7. Personnel working within the State right of way shall wear hard hats and orange jackets, shirts or vests.
8. All mud, dirt or gravel tracked onto the highway pavement shall be immediately and completely removed.
9. Dirt areas within the State right of way disturbed by Geophysical testing operations shall be graded back to its original shape and grade.